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POPULATION TRENDS

A Study of Population Facts Significant to Pennsylvania's Present and Future Planning

Commonwealth of Pennsylvania
GREATER PENNSYLVANIA COUNCIL

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PREFACE

This study is, for the most part. a presentation of population facts which communities may use as a working base for cooperative planning and promotion of their particular areas. It will also be basic for, and correlated to, all projects carried on by the Greater Pennsylvania Council.

The important and significant facts and tendencies revealed by this study are:

1. A gradual slowing up of population growth, both in the United States as a whole and in Pennsylvania, being more marked in the latter.
2. A concentration of population in cities and industrial areas at the expense of rural and outlying districts, followed by a movement of population into regions adjacent to cities and industrial centers.
3. The strategic position of Pennsylvania as regards markets, centers of population, and natural resources.
4. The cumulative net loss to this state of 750,000 people by interstate migrations, as shown by the 1930 census.
5. Evidence that Pennsylvania industry must be stabilized through planning if further loss of population is to be prevented.
6. A rapidly declining birth-rate, and an increase in the proportion of older people in our population.
7. That Pennsylvania has more metropolitan districts of over 100,000 people than any other state and that these districts comprise nearly 70 per cent of her total population.
8. The rapid growth of industrial and urban counties and the decline of 18 rural counties.
9. The probability that the population of Pennsylvania will become stabilized before that of the United States.
10. The possibility that the population of Pennsylvania may reach 15,000,000 in 2030.
11. The inadequacy of present recreational areas, especially near the large centers of population.
12. A smaller percentage of illiteracy in Pennsylvania than in the United States as a whole.
13. The growing percentage up to 1930 of colored and foreign-born in Pennsylvania together with the likelihood of a more homogeneous future population due to strict immigration laws.
14. The effect of the rapid growth in the number of automobiles upon the spread and mobility of population, and the fact that there is one automobile for every five inhabitants.
15. The relative growth of the 10 largest cities in Pennsylvania.
16. That Pennsylvania is the 32nd state of the nation in area, but the 2nd in population and 2nd in wealth.

These and other findings are elaborated and portrayed graphically in this bulletin.

An intensive study has been made of population changes in Pennsylvania over the past thirty years. No attempt has been made in this bulletin to suggest remedies for the problems of those areas that have declined in population during this period. However, intensive studies will be made by the Council, in conjunction with organizations and citizens of these depopulated districts, to determine by what type of business or industry, or by what other means, the regions in question can best be rehabilitated.

In addition to facts as recorded by the United States Census Bureau, present trends and future prospects are indicated, and the conservative predictions of recognized authorities are noted. From these data the individual community may draw its own conclusions and apply them to its particular problems.

It is hoped that this study will not only show the need for intelligent concerted planning to care for Pennsylvania's present ten million people, but that it will also reveal the need of gearing our immense productive power, and, in fact, all our economic activities to a population growth that is slowing up.

No appendix or summary tables will be published in this bulletin, but any population information desired will be gladly furnished upon request to citizens or communities of Pennsylvania by the Greater Pennsylvania Council (Harrisburg, Pennsylvania).

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POPULATION TRENDS

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CHAPTER I

Introduction

CHAPTER I

INTRODUCTION

Population shifts are significant and important in relation to the economic status or welfare of a community or region, for several reasons.

First, most men who permanently change their abode do so because of some strong push or pull, predominantly economic in character. They seek opportunity, or they flee from the lack of opportunity. Whatever the motive, migration itself has a definite and often a great effect upon the communities concerned. Both immigration and emigration produce definite economic, social and planning problems.

Population shifts—at least those of a permanent or semi-permanent nature—are significant though general indices of a community's economic health. They indicate, however, only a condition or result and provide no basis for isolating the cause. Further study is necessary for that.

Short-time shifts—such as those of the millions of vacationists seeking change or recreation—are economically important, and should be carefully considered, but they do not come primarily within the scope of this survey, which is devoted to long-time and relatively permanent population changes.

Second, study of population trends is a prerequisite to intelligent planning for, and proper supervision of, sanitation, water supply, parks, schools, roads, public utility, and many other public and semi-public services. We must know where people are going, to provide properly for their welfare. Studies of population distribution and trends are also of value to private interests, such as industries producing goods for direct consumption.

Third, study of population trends is of value in gauging the effect of, and in looking toward possible guidance of, such trends themselves. Those that are unfavorable to the state may be analyzed; and, if possible, checked; those that seem healthy may be encouraged. This task is the easier because of the comparative simplicity of the motives which induce modern man to move. Formerly, armed conquest (a form of economic exploitation) and religious or governmental oppression were among the principal motives for migration. Such motives hardly operate in Pennsylvania in the year 1932. Our people have no reason to flee before an invading army; and conditions of religious toleration and political freedom are so nearly alike among the United States — and indeed throughout the Western Hemisphere—as to make extremely unlikely any large migration for reasons of religious or civil liberty.

Among the more interesting and significant facts discovered by the staff of the Greater Pennsylvania Council in its study of population, which were summarized in the preface, and are treated in more detail in the following pages, we find:

First, a progressive and long-continued draining of population from certain agricultural and mountainous regions has taken place. One rural county in 1930 had only 47 per cent of its 1900 population; one township 7 per cent. Between 1900 and 1930, 18 Pennsylvania counties declined in size.

Second, there has been a tendency, equally marked, for population to flow not directly into the great cities themselves, but toward their industrial and residential suburbs. The counties showing greatest growth are neighbors to the larger cities. In its origin the political city may have coincided with, or been larger than, the social, economic, or physical city. Its boundaries may have been so fixed as to include, in addition to the settled territory, enough of the unsettled area to provide for a reasonable amount of expansion of population and industry within the calculable future. But the rapid growth of cities in population, wealth, and industry has in some cases long since made political boundaries obsolete that they no longer correspond to present social and economic realities.

Third, Pennsylvania of all the states has suffered most severely in the interstate exchanges of population. Almost twice as many native sons of Pennsylvania now live in other states as Pennsylvania can claim residents from other states. The figures (1930) are:

Born in Pennsylvania—	
Living in other states	1,714,517
Born in other states—	
Living in Pennsylvania	963,948

The net loss—750,569—is the largest suffered by any state, although not the largest measured in percentage terms.

Fourth, there has been a progressive slowing down in the increase of Pennsylvania's population —a tendency which not only parallels but exceeds that of the United States as a whole and even that of the North Atlantic states. In the *actual* increase of population, Pennsylvania ranks high; in the *percentage* increase she is far down the list of states.

Fifth, radical changes in the age of our people are noted. Pennsylvania is tending to become a state of the middle-aged and elderly. The proportion of people 44 years of age or older has increased nearly five per cent since 1900. This change, treated in more detail in the pages that follow, may mean a fundamental if slow revolution in the mass needs and economic habits of the people of the state.

The analyses contained in this present study trace, of course, only a few of the later developments in that great drama of population which began in 1643 when John Printz, Governor of the Swedish colony on the Delaware, built Fort New Gottenburg on Tinicum Island—the first permanent white settlement in Pennsylvania. Succeeding years saw Pennsylvania flooded to its borders from the great original wave of immigration that flowed on until it reached the Pacific coast. Our state seemed to have as many people as it could support under an agricultural economy. Then came the mighty upward thrust of industry, with Pennsylvania in the vanguard, and the resulting unprecedented and undreamed of increase in man's productive power, which resulted in a concentration and an increase of population likewise undreamed of. Meanwhile, successive waves of transoceanic immigration were altering the complexion of Pennsylvania's inhabitants. Then came the movement from the rural areas to the cities, seen in the declining population of 18 Pennsylvania counties. After the cities were filled to overflowing, there followed a suburban movement from the cities to adjacent areas accompanied by the first indications of the decentralization of industry. These two tendencies are apparently still undiminished in strength.

The forces that attract or repel continue in evidence. Communities, once busy homes of industry, have seen their factories become idle, while cities have grown where only cornfields existed two decades ago. What of tomorrow? What of the next decade, the next half-century?

Many questions are raised by the facts set forth in this bulletin. Not all of them can be answered in a population survey. That is not its function. They are raised here in the hope of provoking thought and discussion.

Is it possible to determine the underlying causes of population shifts, to plan scientifically for the future, and to promote the healthy trends which will check population loss? How best may we utilize the lands abandoned by those who have deserted the farm? If the farm-to-suburb and city-to-suburb movements are to continue, how best may we meet and solve the resulting problems?

Will the ever-increasing number of middle-aged and old people in our population have suitable work or be suitably cared for? Will there be healthy living conditions and proper housing for poorer people? May dense areas be assured of good sanitation and a pure water supply while watersheds are still available? Will the crowded regions of the future have sufficient recreational areas and parks? Will working hours be shortened with the increasing capacity of machine production? What use will be made of additional leisure time? Will travel by air result in further decentralizing our population?

These are some of the salient questions that a general population study raises. Population changes have far-reaching effects—social, economic, and political. They will come in for consideration in many of the other studies the Council has under way.

CHAPTER II

Interstate Studies

CHAPTER II

INTERSTATE STUDIES

In order to determine the relative population growth of Pennsylvania, it may be compared with that of other states, with that of the particular economic region of which it is a part, and with that of the United States as a whole. In this comparison it must be borne in mind that Pennsylvania is the 32nd state in land area, but second in population and second in wealth.

Population Growth

Chart 1 shows the population of the United States, the North Atlantic seaboard states, and Pennsylvania by decades from 1790, the time of the first census, down to 1930. Each group shows a comparatively smooth curve of growth with the United States growing slightly faster than the North Atlantic seaboard states as a whole* or Pennsylvania.

Chart 2 portrays this growth at 50-year intervals for the period between 1830 and 1930 by figure symbols. In each case one figure represents the population of 1830, emphasizing relative growth.

The population of the United States increased fourfold from 1830 to 1880 and nine and one-half times from 1830 to 1930, while for the same periods, the population of Pennsylvania and that of the North Atlantic seaboard states each increased threefold and sevenfold. Thus it will be noted that the rate of growth of our state and of the general area surrounding it has, since 1830, tended to lag behind that of the nation as a whole.

*Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Rhode Island, Maryland, Delaware, and District of Columbia.

POPULATION GROWTH

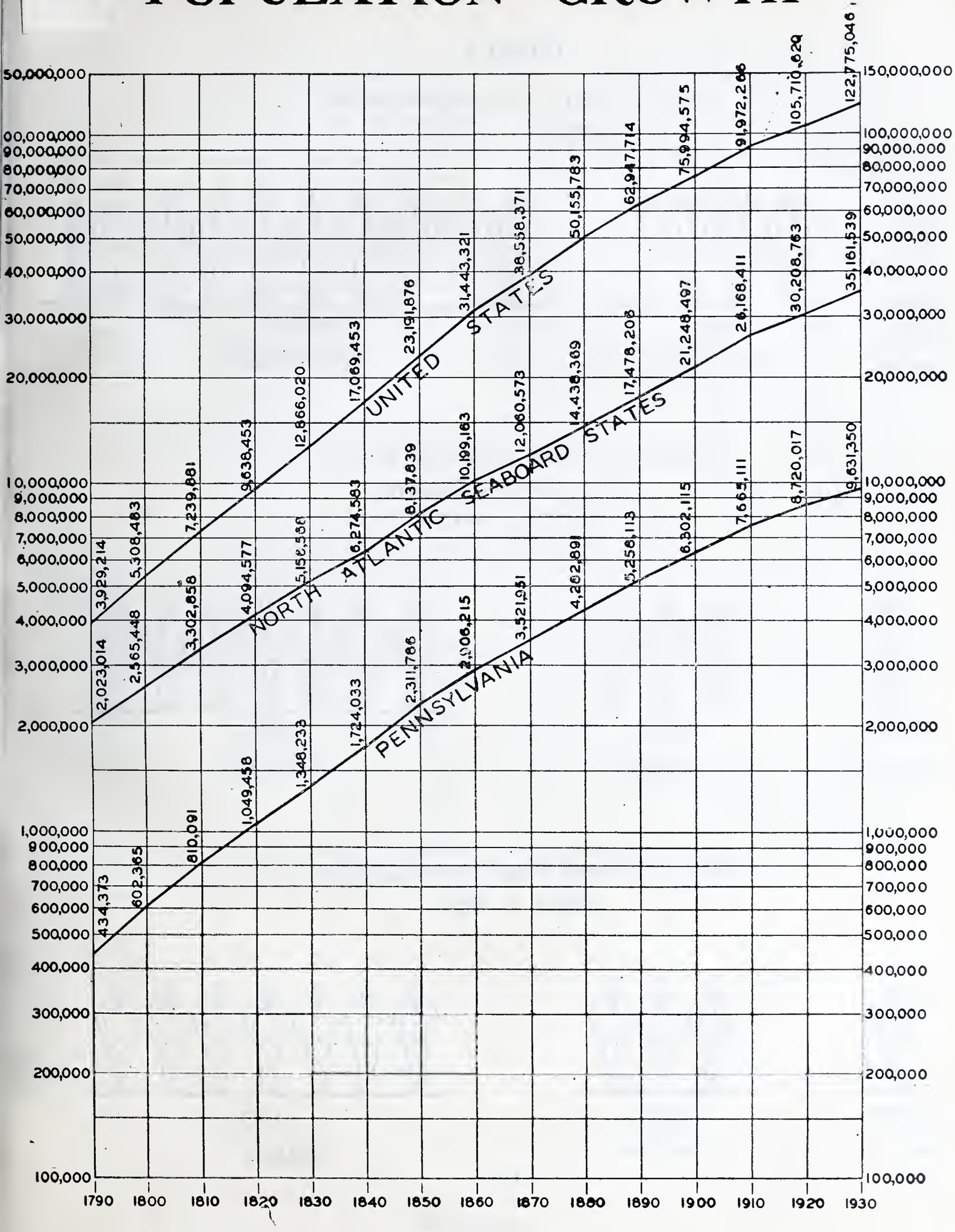
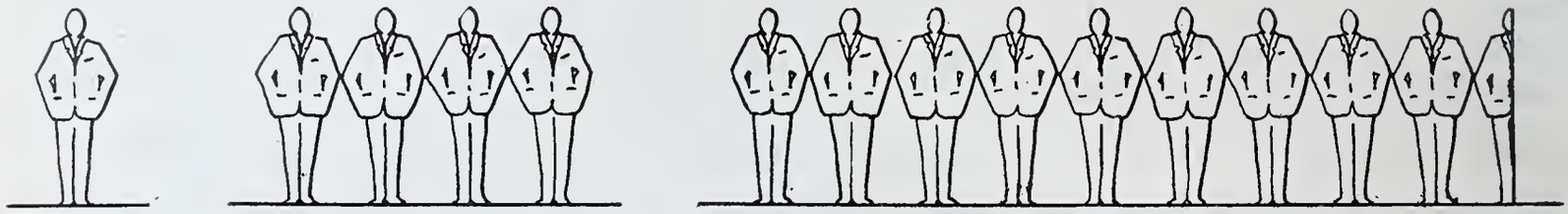


CHART 2

United States Population Growth
1830 – 1930



1830
12,866,020

1880
50,155,783

1930
122,775,046

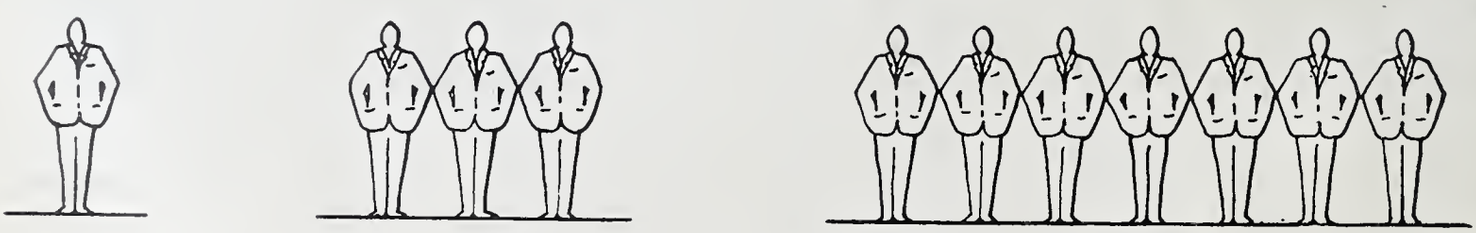
North Atlantic Seaboard States Population Growth
1830 – 1930

1830
5,156,568

1880
14,438,369

1930
35,161,539

Pennsylvania Population Growth
1830 – 1930



1830
1,348,233

1880
4,282,891

1930
9,631,350

Actual Increase and Percentage of Increase

When we compare the population growth of different areas, or of the same area for different periods, the actual increases, while showing the exact numerical growth, do not take into consideration the ever-changing base from which increase is figured. Therefore, we must express the increase in percentages in order to give a true index of growth. For example, between 1920 and 1930 the actual increase in the population of the United States was the largest for any decade in its history, yet the percentage increase was less than half of what it had been in previous decades. This slowing up in percentage increase is significant and will be more fully shown in the data that follow.

Table I shows, by decades, the actual population increase and table II shows the percentage increase for the three groups under discussion.

TABLE I

ACTUAL POPULATION INCREASES

Year	*United States*	*North Atlantic Seaboard States*	*Pa.*
1790-1800	1,379,269	542,434	167,992
1800-1810	1,931,398	737,410	207,726
1810-1820	2,398,572	791,719	239,367
1820-1830	3,227,567	1,061,991	298,775
1830-1840	4,203,433	1,118,015	375,800
1840-1850	6,122,423	1,863,256	587,753
1850-1860	8,251,445	2,061,324	594,429
1860-1870	7,115,050	1,861,410	615,736
1870-1880	11,597,412	2,377,796	760,940
1880-1890	12,791,931	3,039,837	975,222
1890-1900	13,046,861	3,770,291	1,044,002
1900-1910	15,977,691	4,919,914	1,362,996
1910-1920	13,738,354	4,040,352	1,054,906
1920-1930	17,064,426	4,952,776	911,333

TABLE II

PERCENTAGE INCREASES

Year	*United States*	*North Atlantic Seaboard States*	*Pa.*
1790-1800	35.1	26.8	38.7
1800-1810	36.4	28.7	34.5
1810-1820	33.1	24.0	29.5
1820-1830	33.5	25.9	28.5
1830-1840	32.7	21.7	27.9
1840-1850	35.9	29.7	34.1
1850-1860	35.6	25.3	25.7
1860-1870	22.6	18.3	21.2
1870-1880	30.1	19.7	21.6
1880-1890	25.5	21.1	22.8
1890-1900	20.7	21.6	19.9
1900-1910	21.0	23.2	21.6
1910-1920	14.9	15.4	13.8
1920-1930	16.1	16.4	10.5

Charts 3 and 4 show graphically the same data appearing in tables I and II for the period between 1830 and 1930.

In actual population increase, chart 3, the United States and the North Atlantic seaboard states have shown a relatively steady growth, while Pennsylvania has declined since 1910.

If we keep in mind that this change is from an ever-increasing number of people, it will be readily understood why chart 4 shows a generally declining percentage increase for all groups, especially in the case of Pennsylvania.

The significant fact is that each group shows a tendency toward stabilization, most marked in the case of Pennsylvania. This tendency may be attributed to the fact that we are approaching that number which is economically desirable, termed by some the "*optimum population.*"

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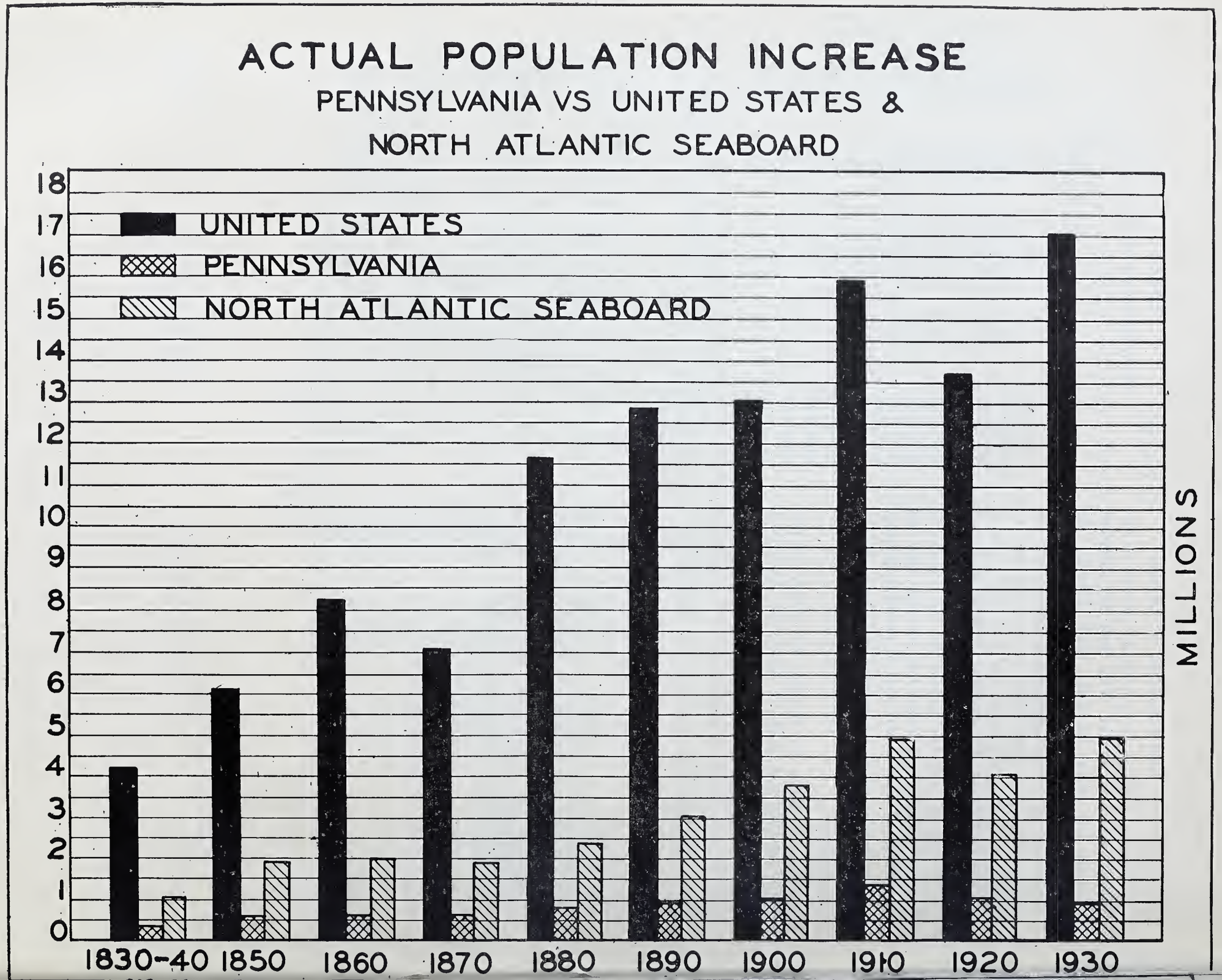
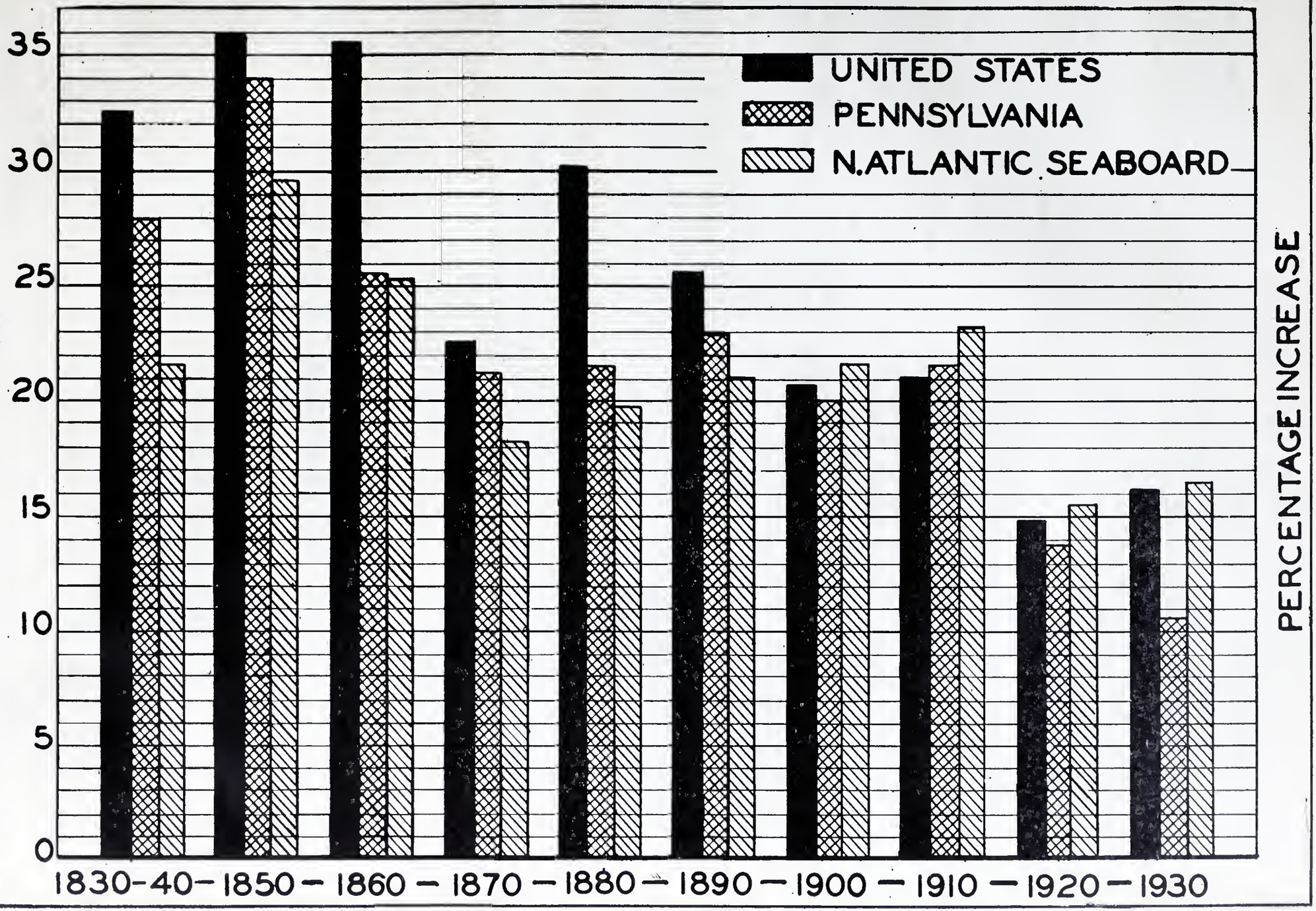
CHART 3


ACTUAL POPULATION INCREASE
PENNSYLVANIA VS UNITED STATES &
NORTH ATLANTIC SEABOARD
UNITED STATES
PENNSYLVANIA
NORTH ATLANTIC SEABOARD
MILLIONS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
1830-40
1850
1860
1870
1880
1890
1900
1910
1920
1930

POPULATION PERCENTAGE INCREASE

PENNSYLVANIA VS UNITED STATES & NORTH ATLANTIC SEABOARD



United States Center of Population

Chart 5 shows the westward shift of the center of population as recorded by the United States Census from 1790 to 1930.

As this center of population moves westward, the contention is made that industry will follow this shifting so as to be able more cheaply to distribute its products.

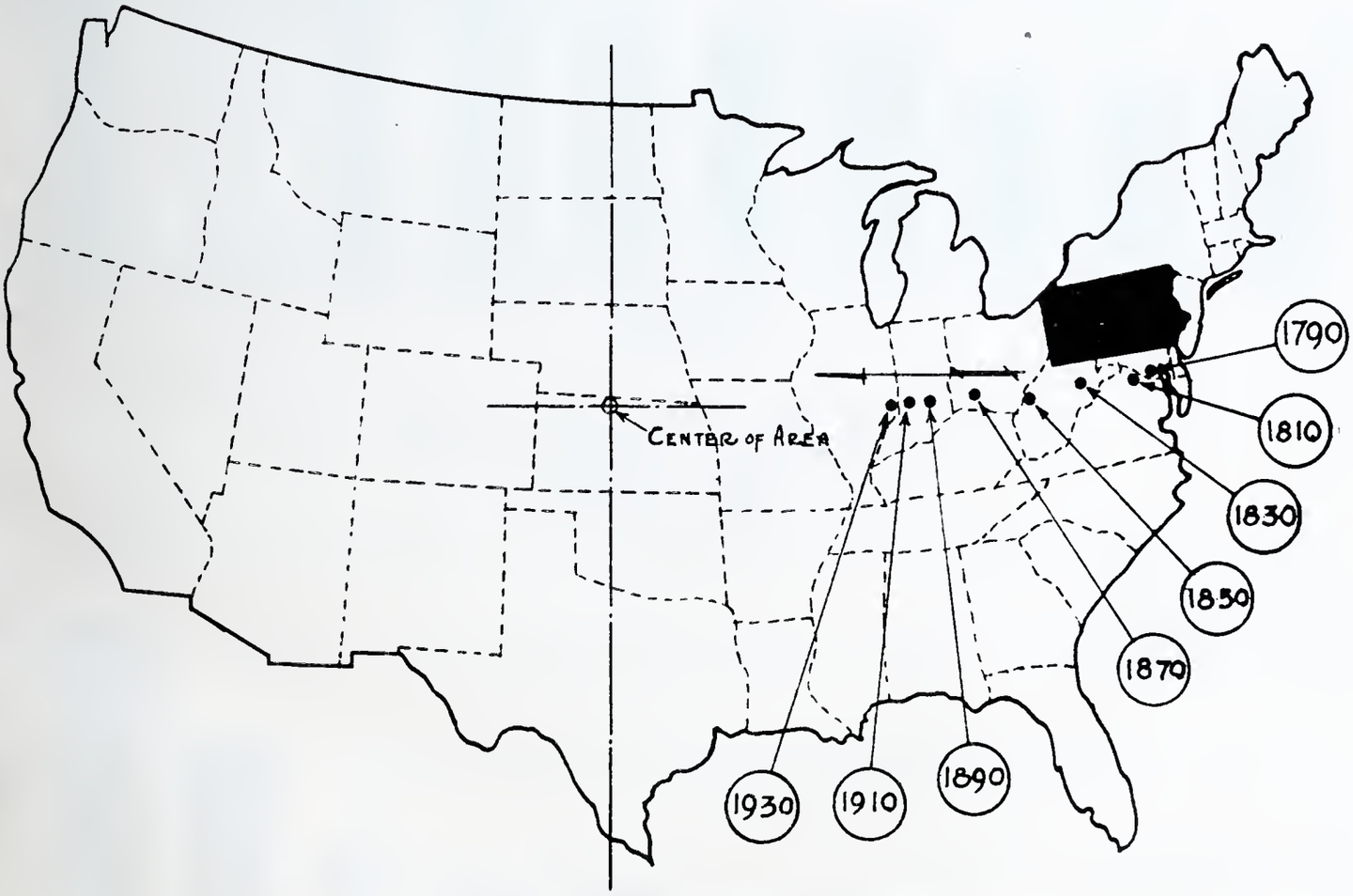
A careful analysis of facts shows that 85,000,000 people, or 70 per cent of the United States population in 1930, live east of the Mississippi River and 60,000,000 or roughly 50 per cent live east of the Mississippi and north of the Mason-Dixon Line. Ellsworth Huntington describes the northeastern United States as the only large area of energy-giving climate in the United States as exemplified in the accomplishments and achievements of its inhabitants. Here are concentrated the industries, the railroads, the wealth, and centers of learning and culture. From here have come the greatest accomplishments in invention, science, artistic skill, and many other aspects of human endeavor.

If you add to these the favorable geographical location and its industrial priority, the supremacy of northeastern United States seems well-established. Especially is this true of Pennsylvania, which is the hub of this region and by far the richest state in natural resources.

A glance at chart 5 clearly reveals not only the keystone position of Pennsylvania in this industrial area, but also the fact that all railroad and motor transportation to New York and the New England states from other parts of the United States must pass through Pennsylvania.

CHART 5

CENTERS OF U.S. POPULATION 1790-1930



The Ten States with the Largest Population

Statistics show that the section of the United States east of the Mississippi River and north of the Mason-Dixon Line is the heart of the United States. Of the ten states with the largest population, seven are in this section. New York and Pennsylvania, in the 1930 census, still rank first and second by a considerable margin, as is shown in chart 6.

Leading States in Actual Population Increase

In actual population increase for the period from 1900 to 1930, Pennsylvania is third with an increase of over three millions, while New York and California gained over five and four millions, respectively. Here again it will be noted that seven of the states with the largest actual population increase were in northeastern United States. Chart 7 shows graphically the relative gain for the past 30 years.

While Pennsylvania ranks second among the states in number of inhabitants and third in actual population increase since 1900, it is 26th on the list of states in rate of population growth during the past 30 years. Younger states are growing more rapidly just as Pennsylvania did in its youth.

CHART 6

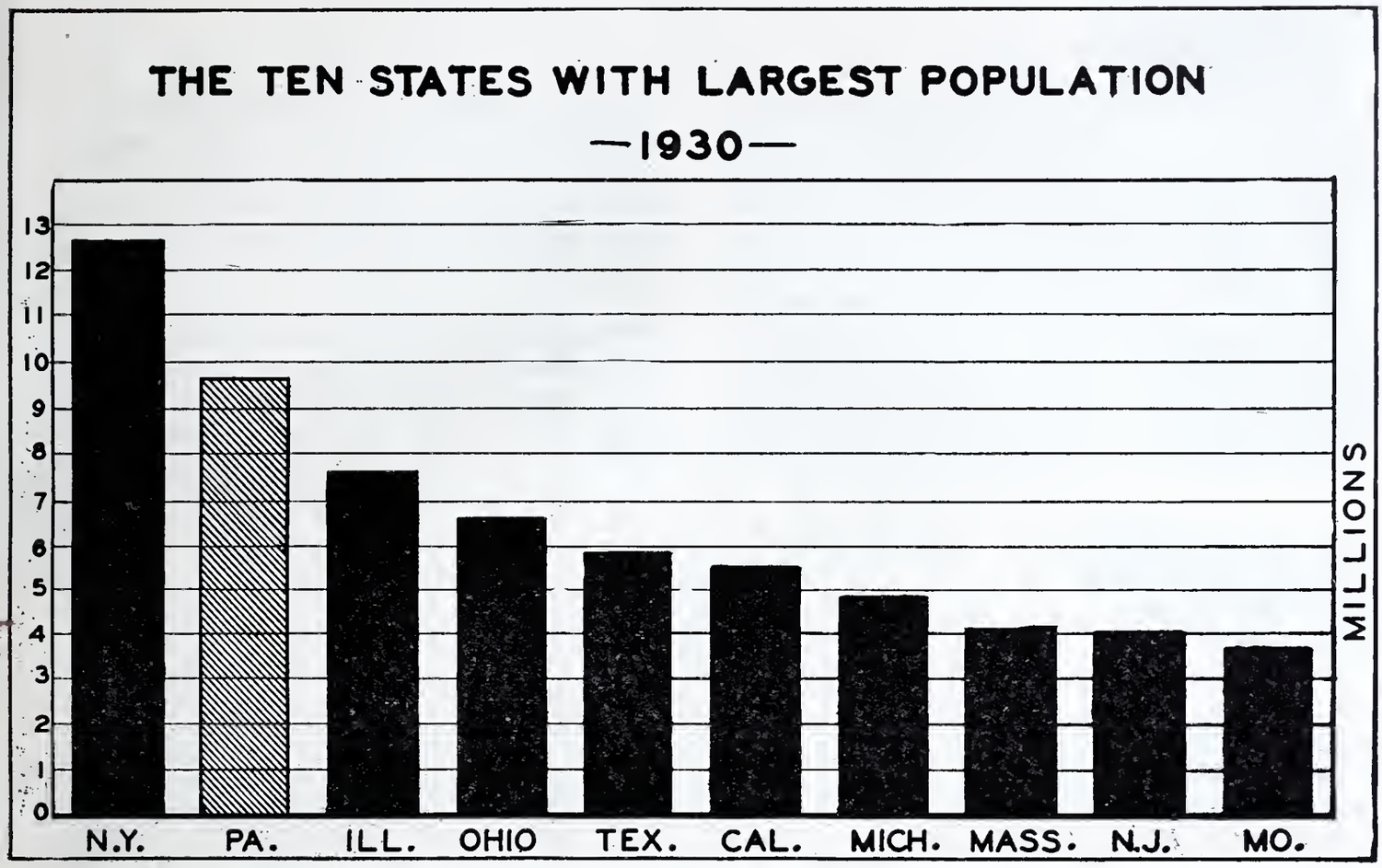
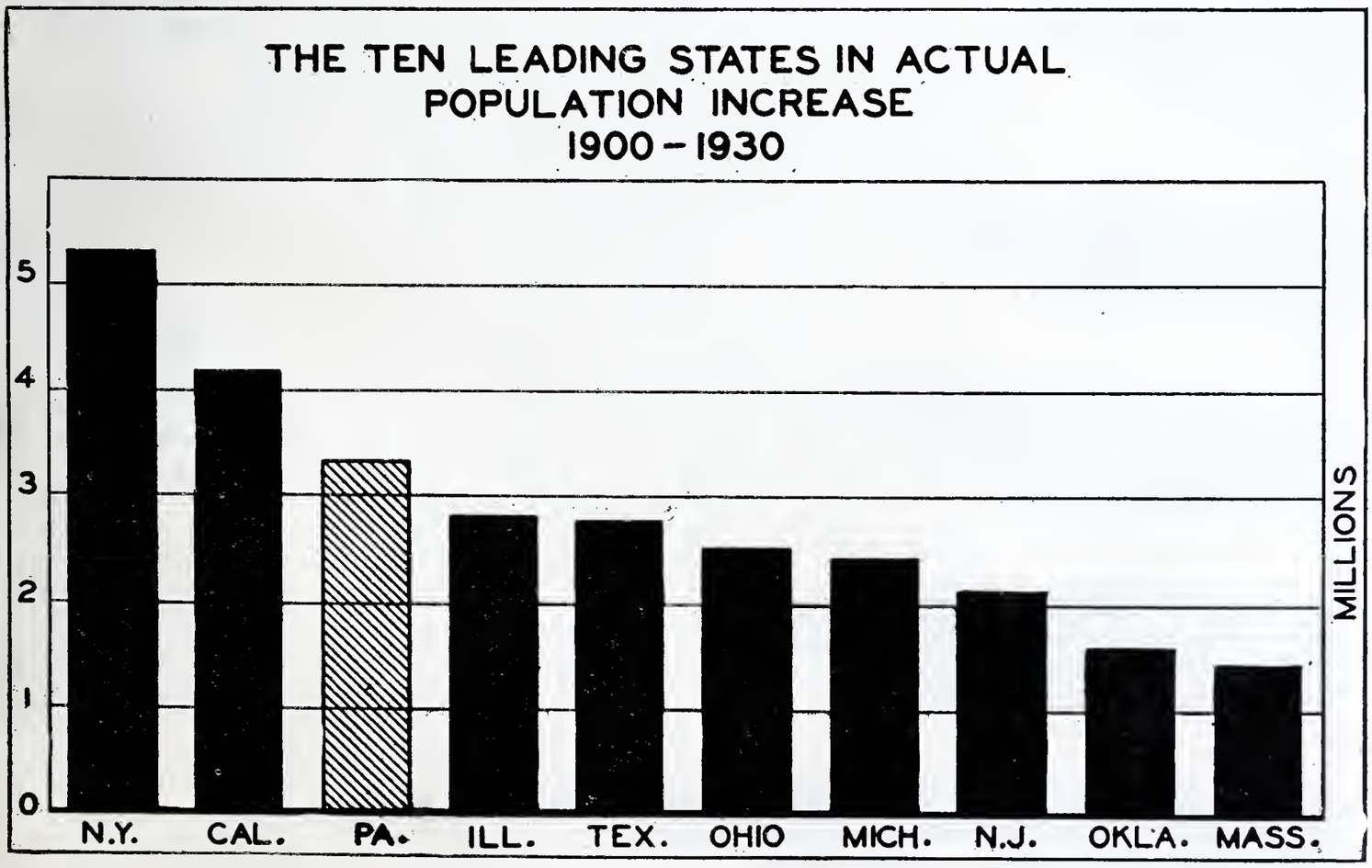


CHART 7



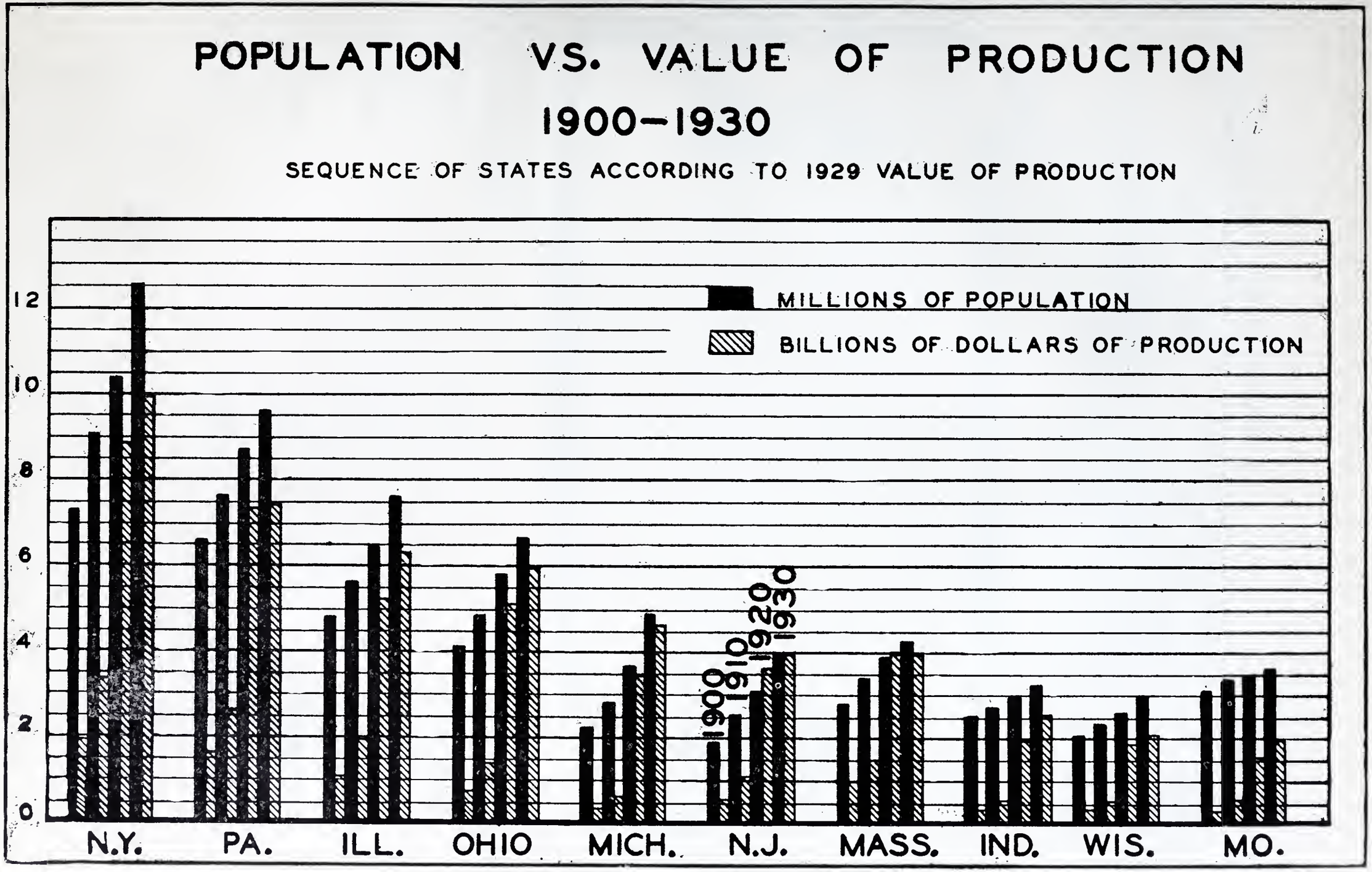
Ten Leading Industrial States

Since Pennsylvania is one of the leading industrial states, it is interesting to compare the gain in value of its products as well as its population growth with those of other leading industrial states. This comparison is shown on chart 8 for the period from 1900 to 1930. Because of the fact that the census of manufactures is taken in the ninth year of each decade, i. e. in 1899, 1909, 1919, and 1929, it is necessary to compare the value of products figures in those years with the population census figures taken in 1900, 1910, 1920, and 1930.

For each decade shown in chart 8, Pennsylvania has ranked second among the leading states in value of products, its products having in 1929 a total value of over seven billion dollars, or an increase of 351.2 per cent since 1899. During the same period its population grew 52.8 per cent.

This phase will be fully treated in the bulletin, "*Occupational Trends,*" which will be published by the Greater Pennsylvania Council in the near future.

CHART 8


POPULATION VS. VALUE OF PRODUCTION
1900–1930
SEQUENCE OF STATES ACCORDING TO 1929 VALUE OF PRODUCTION
MILLIONS OF POPULATION
BILLIONS OF DOLLARS OF PRODUCTION
0
2
4
6
8
10
12
1900
1910
1920
1930
N.Y.
PA.
ILL.
OHIO
MICH.
N.J.
MASS.
IND.
WIS.
MO.

Interstate Migrations

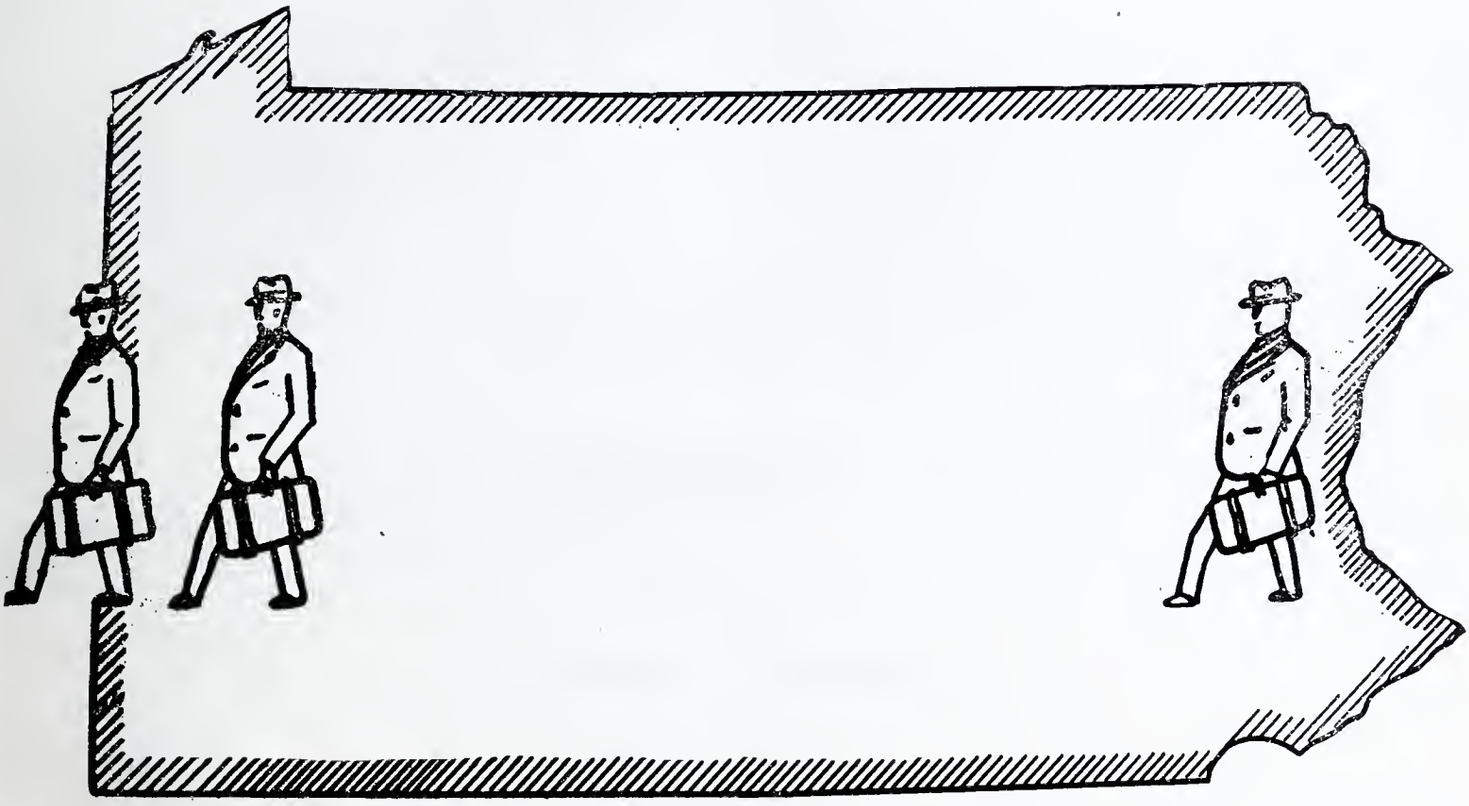
According to the United States census, more than one-fifth of all native Americans have migrated since 1850 from the states of their birth, indicating a very mobile population. About one-half, however, have moved only to adjacent states.

By 1930 the greatest net gain in native American population through interstate migration has been made by California, which had received 2,401,288 persons in this manner, while the greatest net loss in actual numbers, although not the largest percentage loss, was shown by Pennsylvania, amounting to 750,569.

The number of people born in Pennsylvania and living in other states and those born in other states but living in Pennsylvania, is shown in chart 9.

CHART 9

INTERSTATE MIGRATION PENNSYLVANIA



BORN IN PENNSYLVANIA LIVING IN OTHER STATES		BORN IN OTHER STATES LIVING IN PENNSYLVANIA
946,245	1900	484,028
1,125,454	1910	569,204
1,342,946	1920	744,254
1,714,517	1930	963,948

CHAPTER III

Intrastate Studies

CHAPTER III

PENNSYLVANIA STUDIES

Few Pennsylvanians of today realize what an important part agriculture played in the early days of the Commonwealth. In fact, the early distribution of population was determined largely by the fertile lands favorable to agricultural pursuits and Pennsylvania, for some time, ranked among the first states in farm products. Even the present extent of this activity is realized by few. In 1931, Pennsylvania ranked eleventh among the states in agriculture, and the value of its farm products was estimated at nearly $250,000,000.

Almost from the beginning, however, Pennsylvania showed strong industrial tendencies. As farms spread out over the fertile areas, small industries sprang up along the waterways because water was the sole means of transportation and was essential to most industries.

It was inevitable that transportation lines should spring up between these two activities. The farmer needed manufactured goods and the manufacturing settlements needed farm products. The first lines of transportation were crude wagon trails, followed by canals and then by the advent of railroads in the early eighteen hundreds. The railroad was a prime factor in spreading both population and industry. Some industries, however, had become firmly established as iron and steel in the Pittsburgh area and textiles in Philadelphia. Both these sections are still leaders in their respective fields.

The automobile and motor truck have also done much to distribute population and industry, although the integration of industry has exerted a restraining influence on this spread and favors, at the present time, centralization of industry and large centers of population.

The discovery and development of Pennsylvania's natural resources, especially coal, were responsible for her rise as an industrial state. These resources have underlaid her development and growth. Industries were established near the sources of fuel and encouraged the growth of population in these centers. Pennsylvania became literally a hive of industry and has been well termed the *"Industrial Titan of America."* In the studies of Pennsylvania which are to follow, the effects of industry upon the size, composition, and distribution of the population will be described. But before entering upon a study of population composition, we will review the general trends in the state.

Pennsylvania Population Trends

Chart 10 is a study of population trends from 1900 to 1930 by counties. The actual population is shown for 1900 and 1930 and the percentage changes for each intervening decade, taking 1900 as 100 per cent.

The average for the entire state shows that in 1930 our population was 152.8 per cent of what it was in 1900, or a numerical increase from 6,302,115 in 1900 to 9,631,350 in 1930.

CHART 10

PENNSYLVANIA — POPULATION TRENDS

1900 - 1930

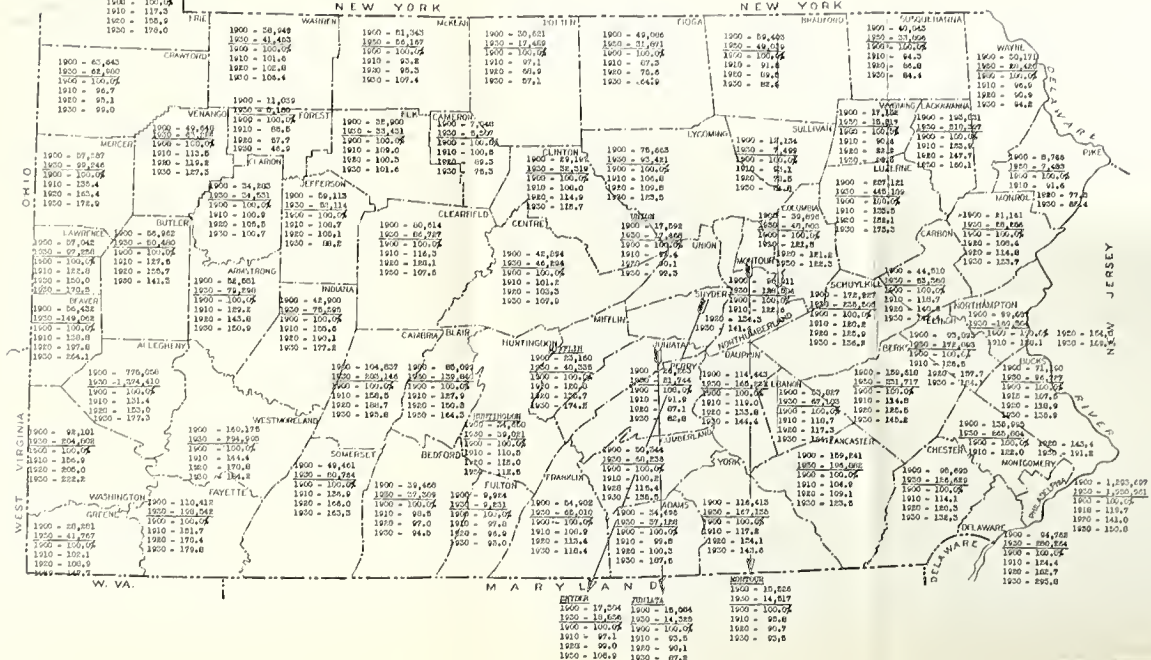


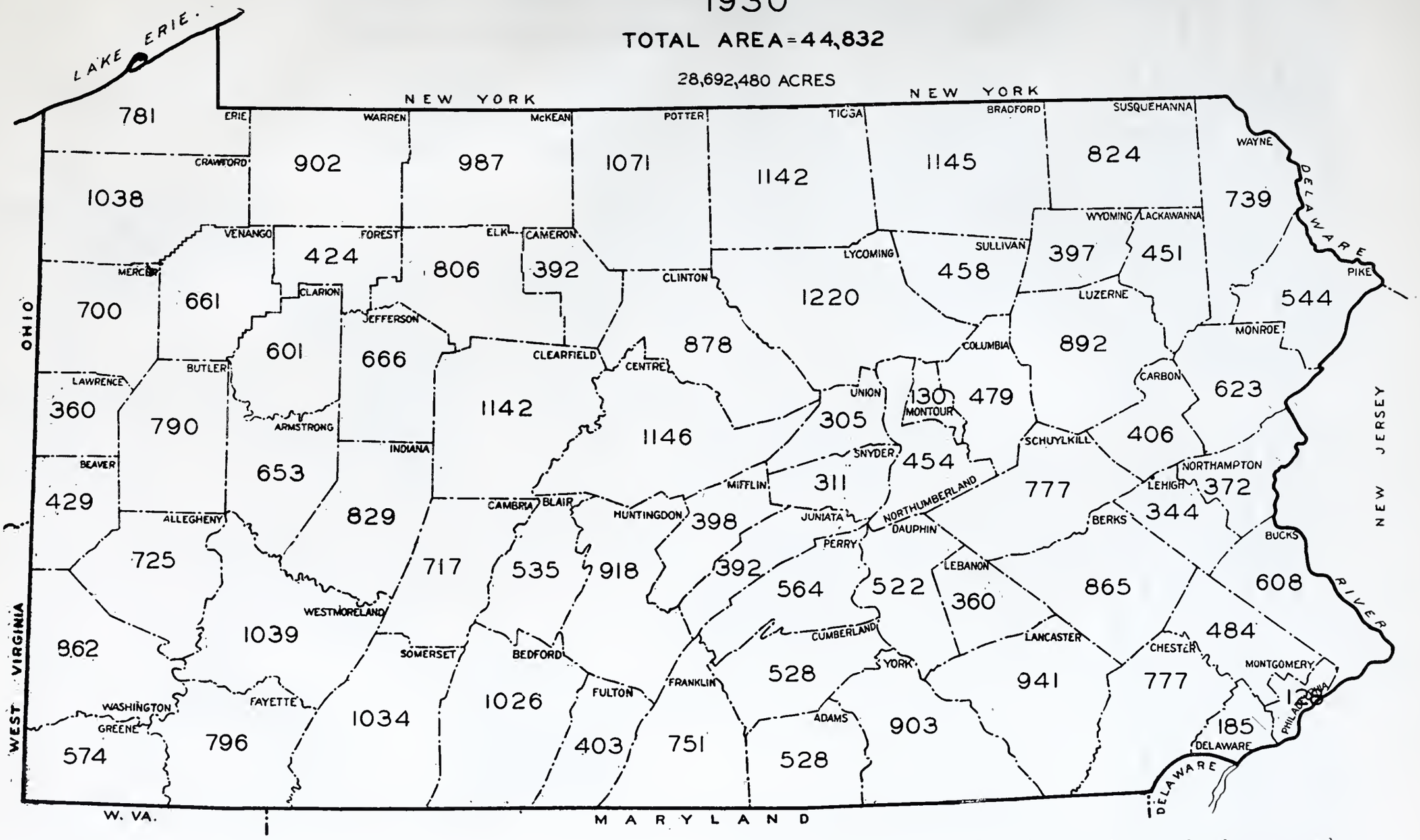
CHART 11

PENNSYLVANIA COUNTY AREAS IN SQ. MILES

1930

TOTAL AREA=44,832

28,692,480 ACRES



County Areas

Chart 11 shows the area of Pennsylvania as a whole and the relative sizes of the counties in square miles.

Population, of course, depends as much upon the character and use of land as upon its area. This has already been developed in the land utilization surveys made by the Council. This chart is also basic for the density studies that follow.

County Changes

Chart 12 is a study of the percentage increases or decreases in population of Pennsylvania counties from 1900 to 1930. The same is also shown for counties of other states that border on Pennsylvania. The shaded counties have decreased and the counties in white have increased in number of inhabitants during the period, the numbers showing the exact percentage changes.

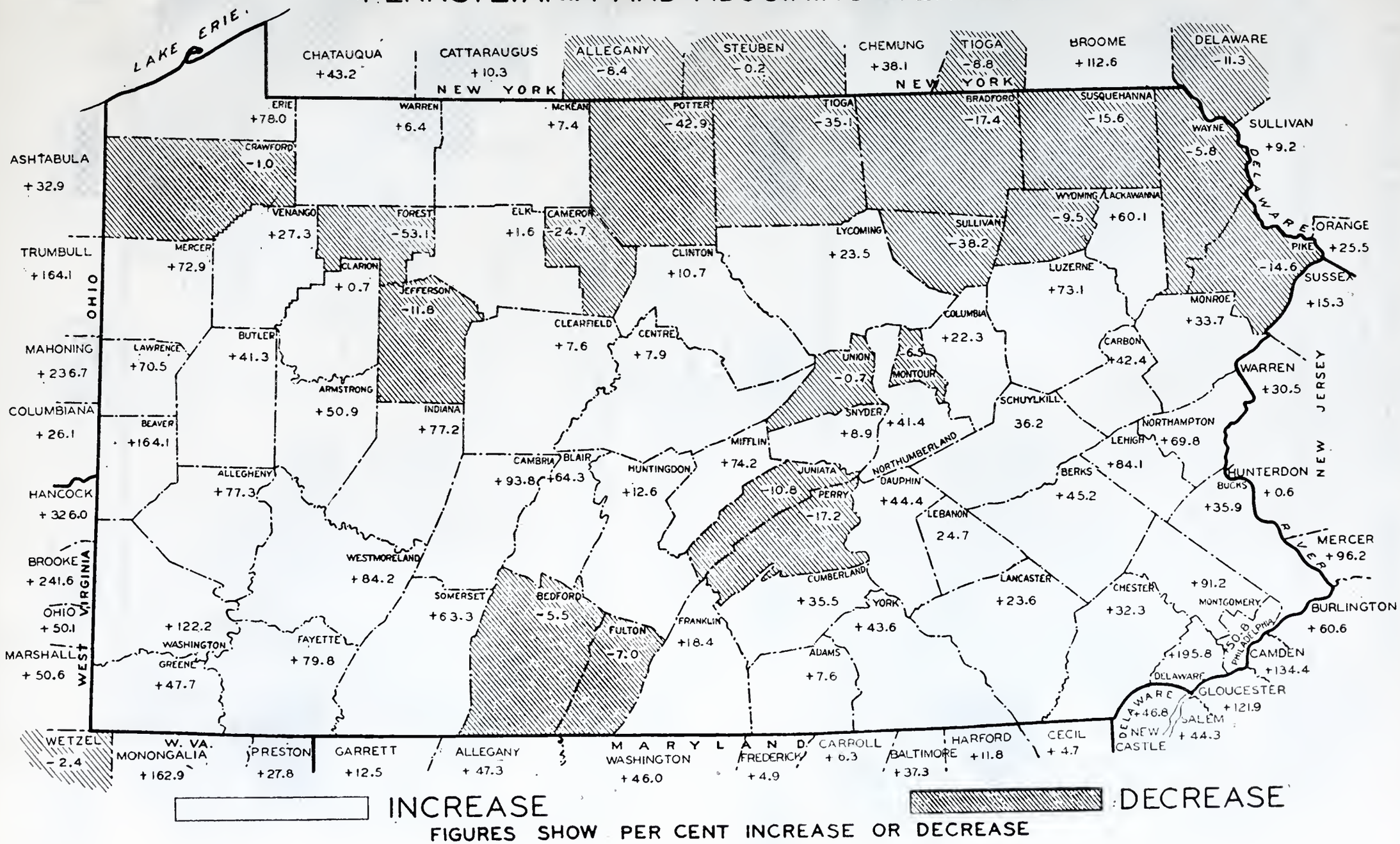
It is of interest to note the spectacular growth of counties to the west of Pennsylvania. This growth may reflect significant differences in such factors as taxation, labor laws, and corporation laws.

The chart shows that, of the 67 counties in this state, 18 have declined in population since 1900, the decreases ranging from seven-tenths of one per cent in Union County to 53.1 per cent in Forest County.

CHART 12

POPULATION TRENDS BY COUNTIES 1900—1930

PENNSYLVANIA AND ADJOINING TERRITORY



FIGURES SHOW PER CENT INCREASE OR DECREASE

CHART 13

PENNSYLVANIA POPULATION PER SQ. MILE BY COUNTIES

TOTAL POPULATION 6 302 115

1900

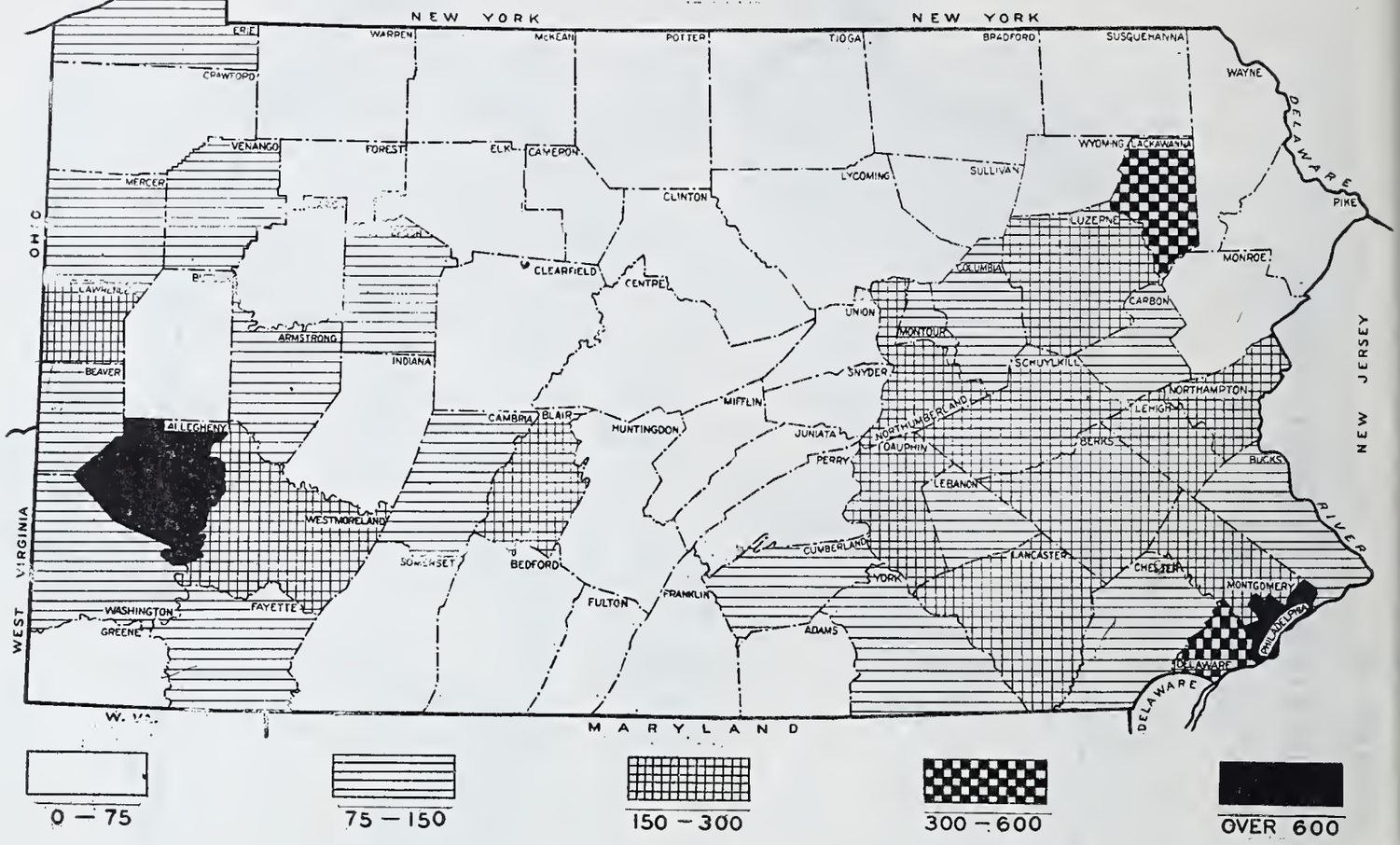


CHART 14

PENNSYLVANIA POPULATION PER SQ. MILE BY COUNTIES

TOTAL POPULATION 7 665 111

1910

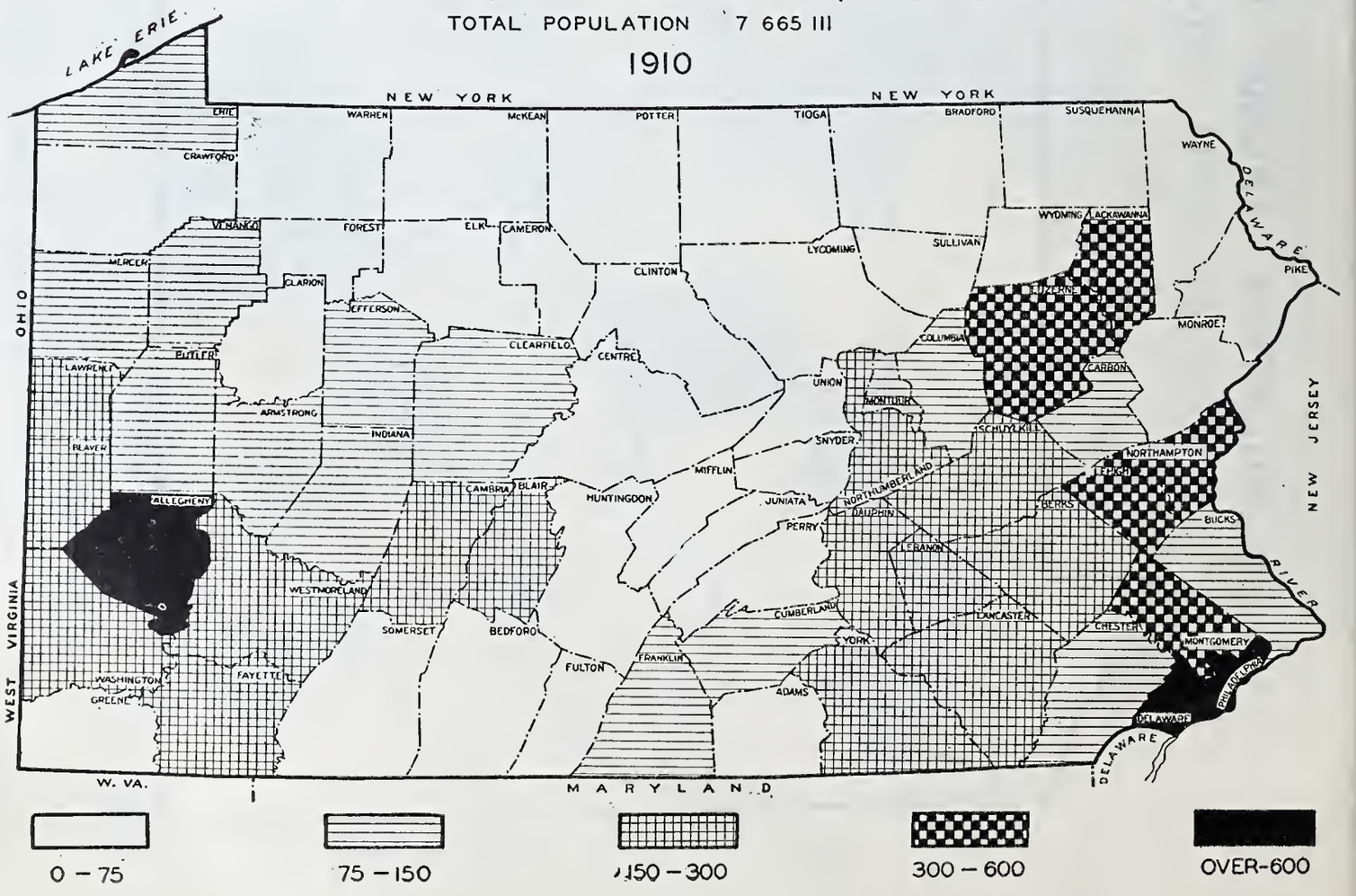


CHART 15

PENNSYLVANIA POPULATION PER SQ. MILE BY COUNTIES

TOTAL POPULATION 8 720 017

1920

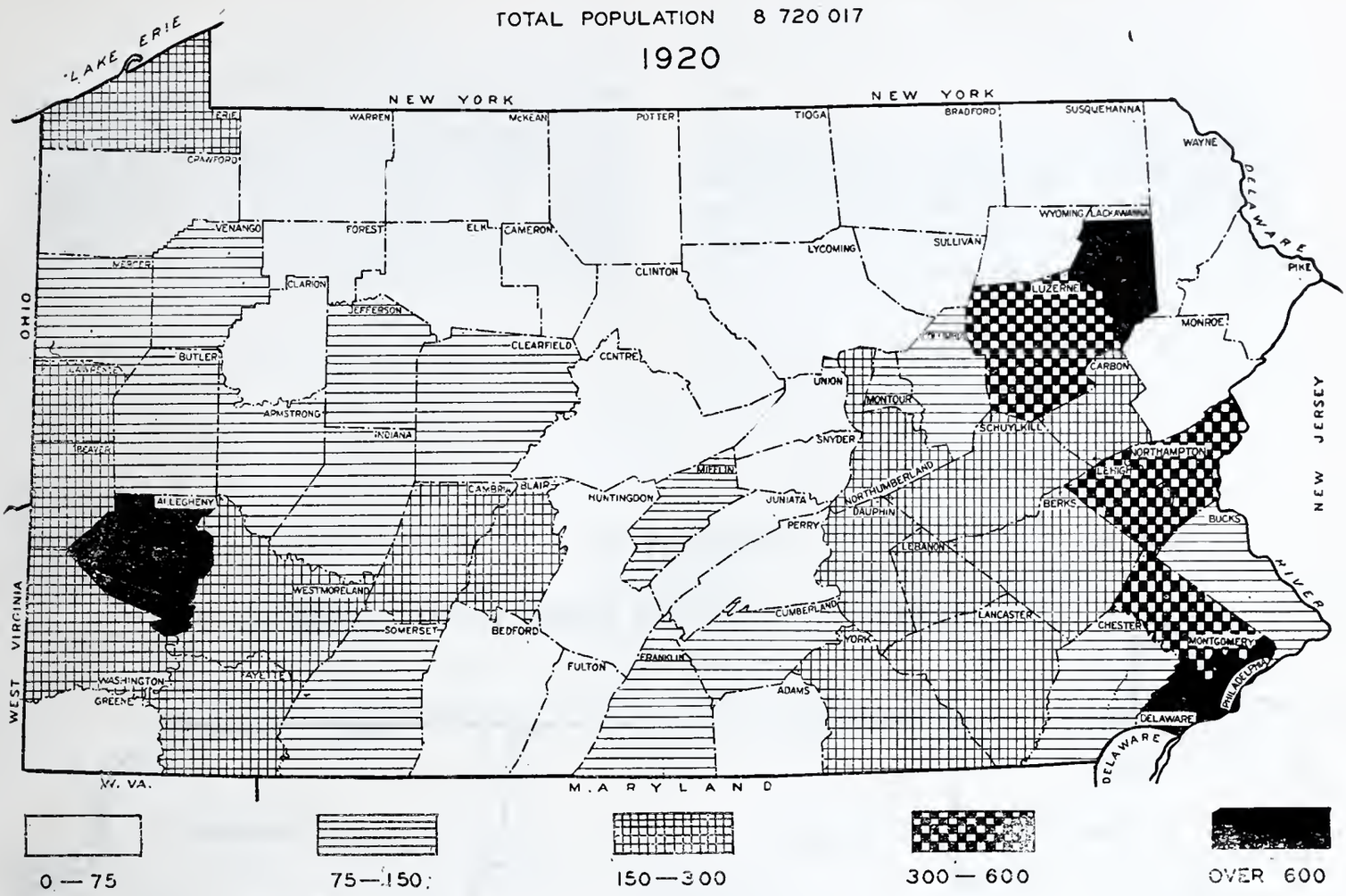
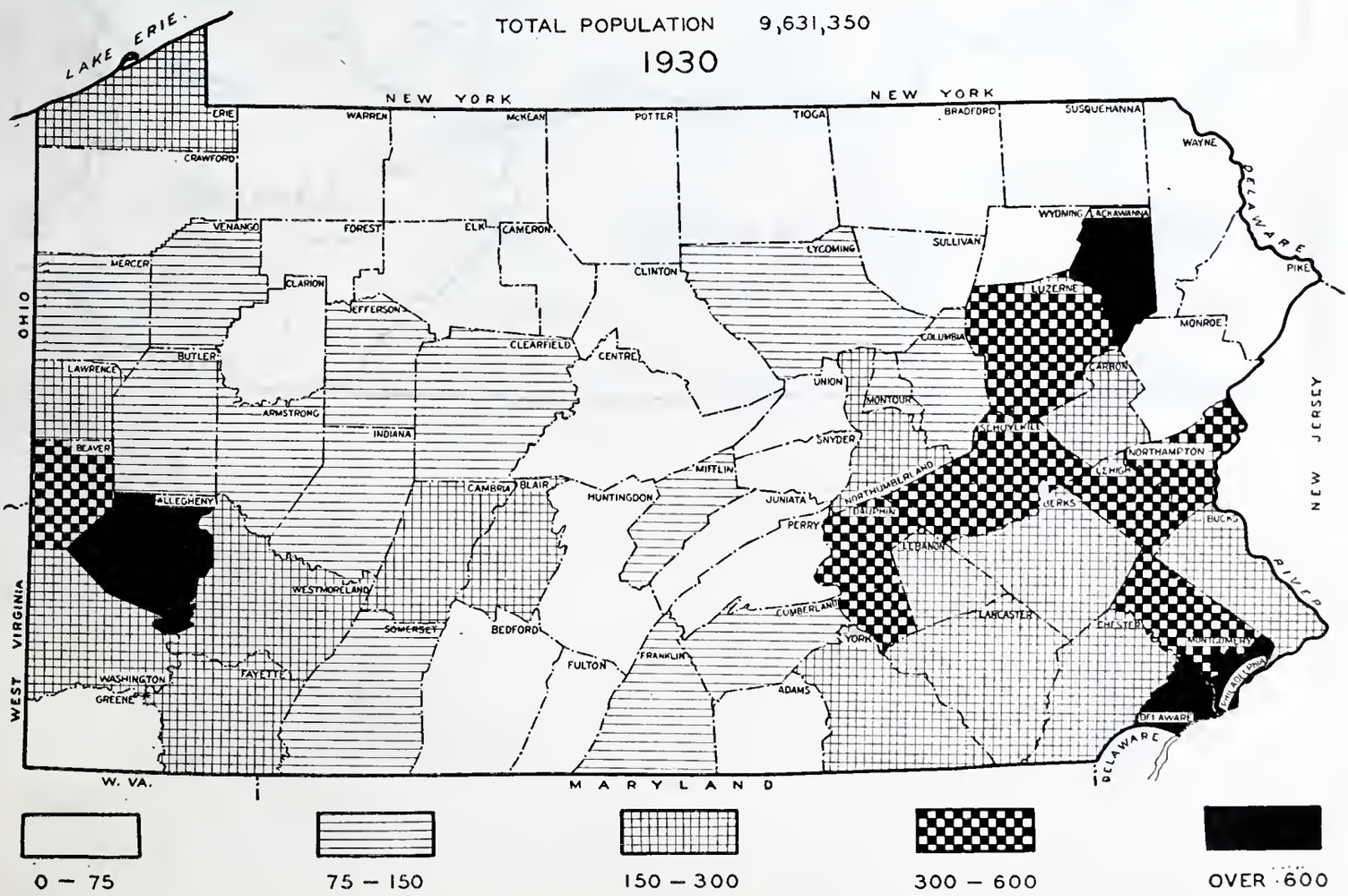


CHART 16

PENNSYLVANIA POPULATION PER SQ. MILE BY COUNTIES

TOTAL POPULATION 9,631,350

1930



Density Studies

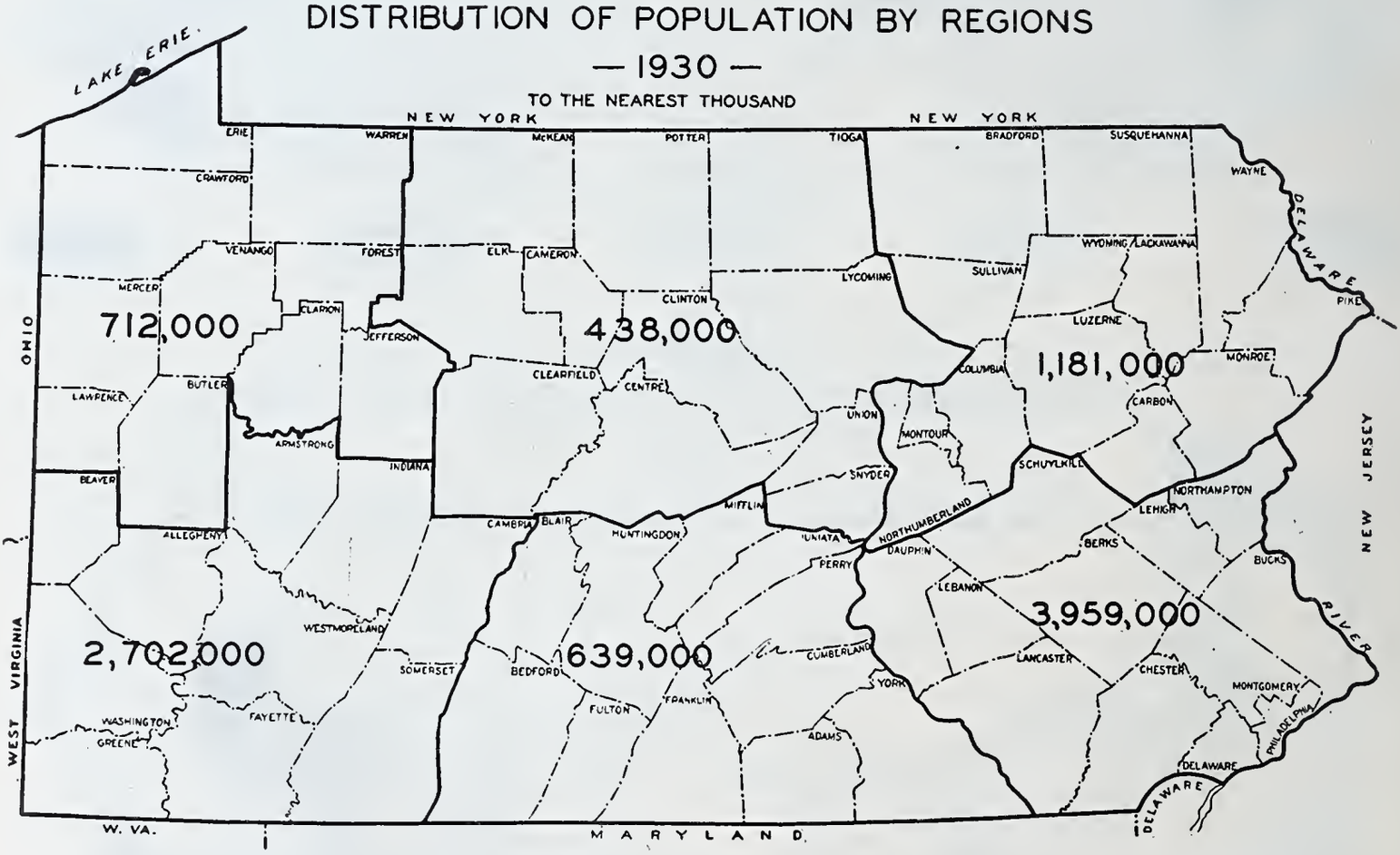
Charts 13, 14, 15, and 16 show the distribution of the population per square mile by counties for 1900, 1910, 1920, and 1930, respectively, revealing clearly the so-called *"T formation"* of sparsely settled counties across the northern tier and down through the center of the state. The Philadelphia and Pittsburgh areas are the centers of population and continue to expand as well as to increase in density. As is shown in chart 17, about seven-tenths of the entire state's population is concentrated in these two areas.

CHART 17

DISTRIBUTION OF POPULATION BY REGIONS

— 1930 —

TO THE NEAREST THOUSAND



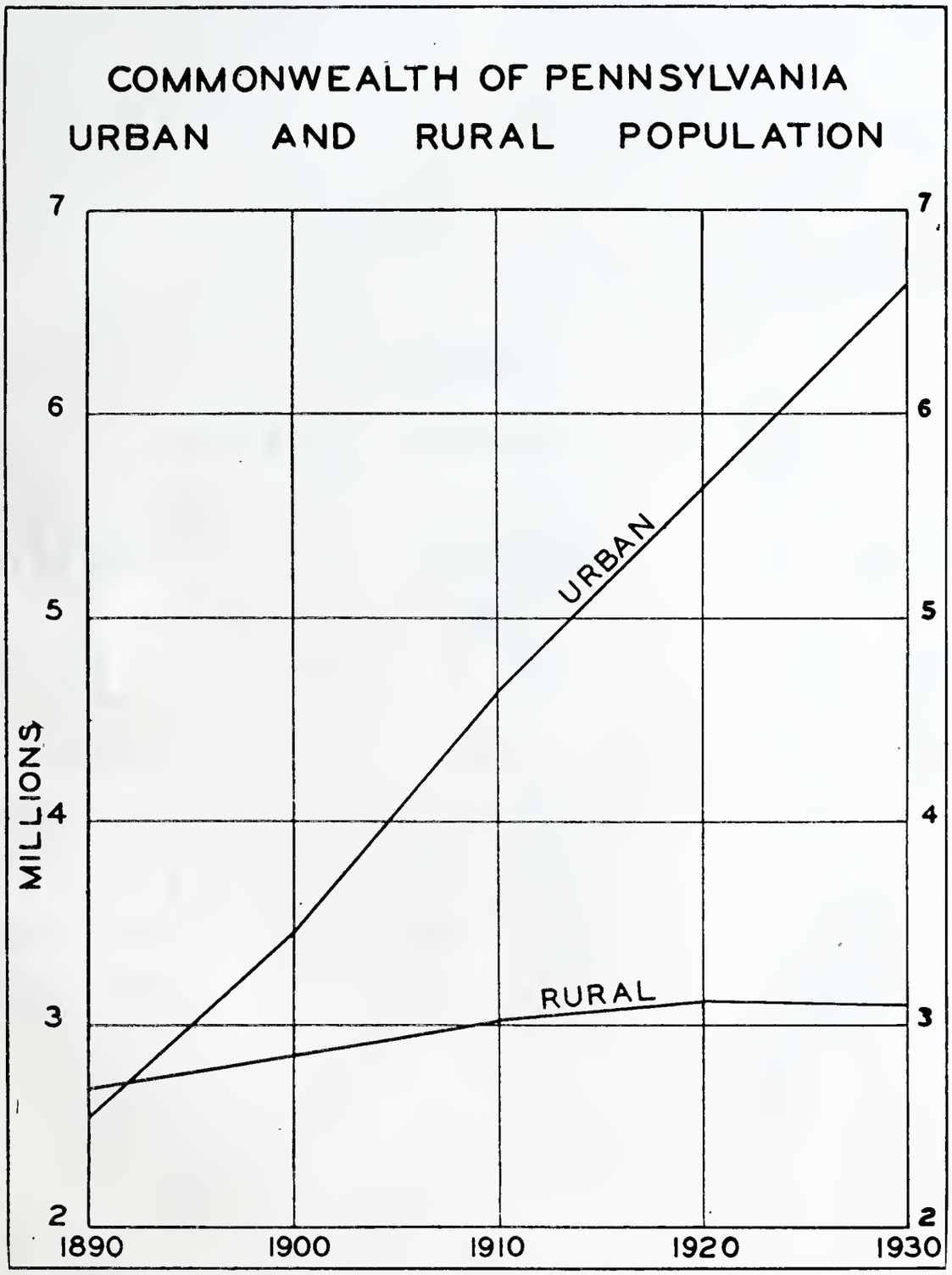
Composition of Population

The foregoing trends, as previously stated, have been influenced by the composition of our population and vice versa. Industrial centers have drawn large numbers of foreign-born as well as a large quota from the rural and outlying districts of our own state. It is, therefore, of vital importance to the economic health of a state as well as to the solution of its economic and social problems to know its population composition.

Urban and Rural Population

Census figures clearly reveal how industrial centers have drawn from the rural population. Chart 18 shows that a population equally divided between urban* and rural in 1890 had become two-thirds urban in 1930. It will be seen from the chart that our rural population reached its peak in 1920 and has remained stationary since that year, while our urban population has mounted by leaps and bounds since 1890. This rapid shift from rural to urban conditions has brought with it a host of problems calling for intelligent planning, including problems of transportation, recreation, water supply, educational facilities, and the like.

CHART 18



*Cities and incorporated places with population over 2,500. Changed in 1930 to include unincorporated areas of 10,000 population and a density of 1,000 or more per square mile.

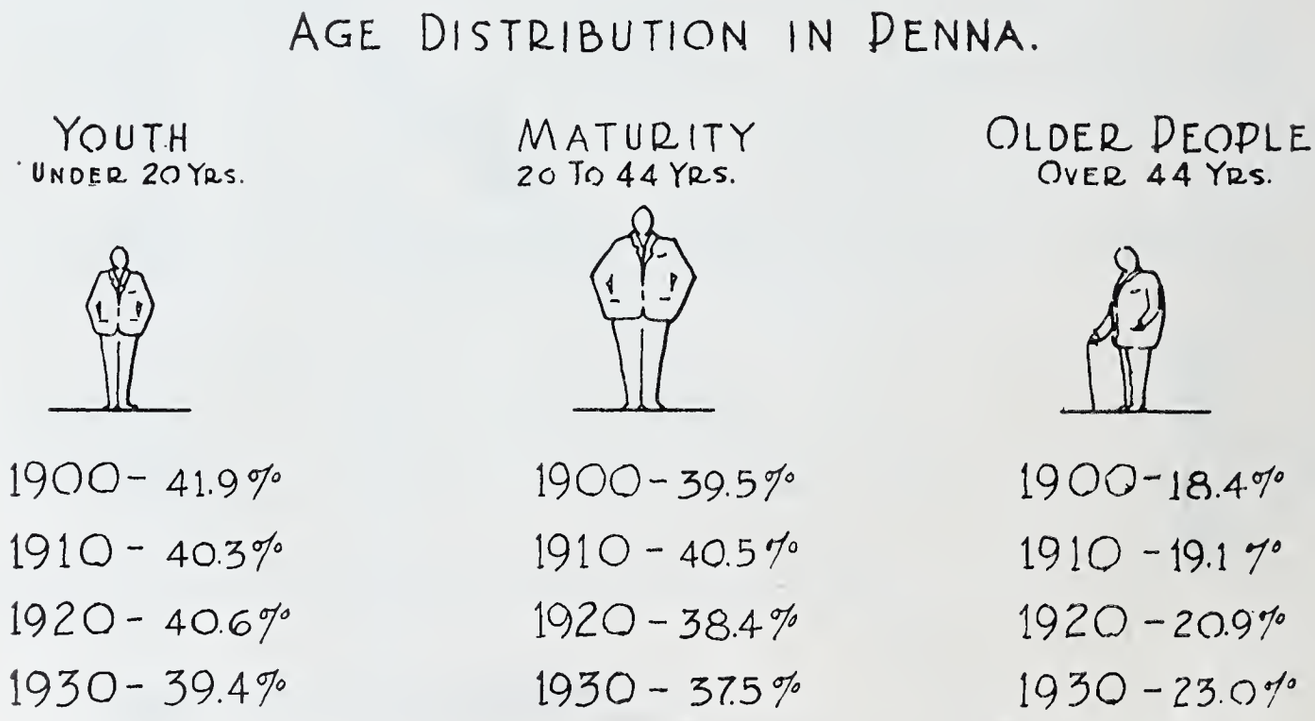
Age Distribution

In the composition of population one of the most interesting factors is the change in age distribution, namely the decreasing number of children, due to a falling birth rate, and the increasing number of older people, due to a decreasing death rate and possibly other causes such as migration. This decline of the birth rate and lengthening span of life may have far-reaching effects upon our economic and industrial order.

Chart 19 shows how marked this change has been during the 30 years between 1900 and 1930.

It is interesting to note the difference in age composition of urban and rural population. In 1930 those under 20 years of age comprised 37 per cent of urban and 44 per cent of rural population; those in the 20 to 45-year group comprised 40 per cent of urban and 33 per cent of rural population, the percentage of older people of each group was about equal. The larger percentage of those under 20 years and the smaller percentage of the 20 to 45-year group in the rural population reveals the age at which migration from the outlying districts to the cities and centers of population takes place.

CHART 19



Native and Foreign-Born White and Colored Population

In an article entitled, *"A New Phase Opens in America's Evolution,"* Louis I. Dublin recently discussed the advantages and disadvantages of immigration and some of the resulting problems.

"It is inconceivable," wrote Mr. Dublin, *"that a huge immigration such as ours should have failed to have very material effects on the welfare and mode of life of the American people. These effects have been beneficial in some respects and injurious in others.*

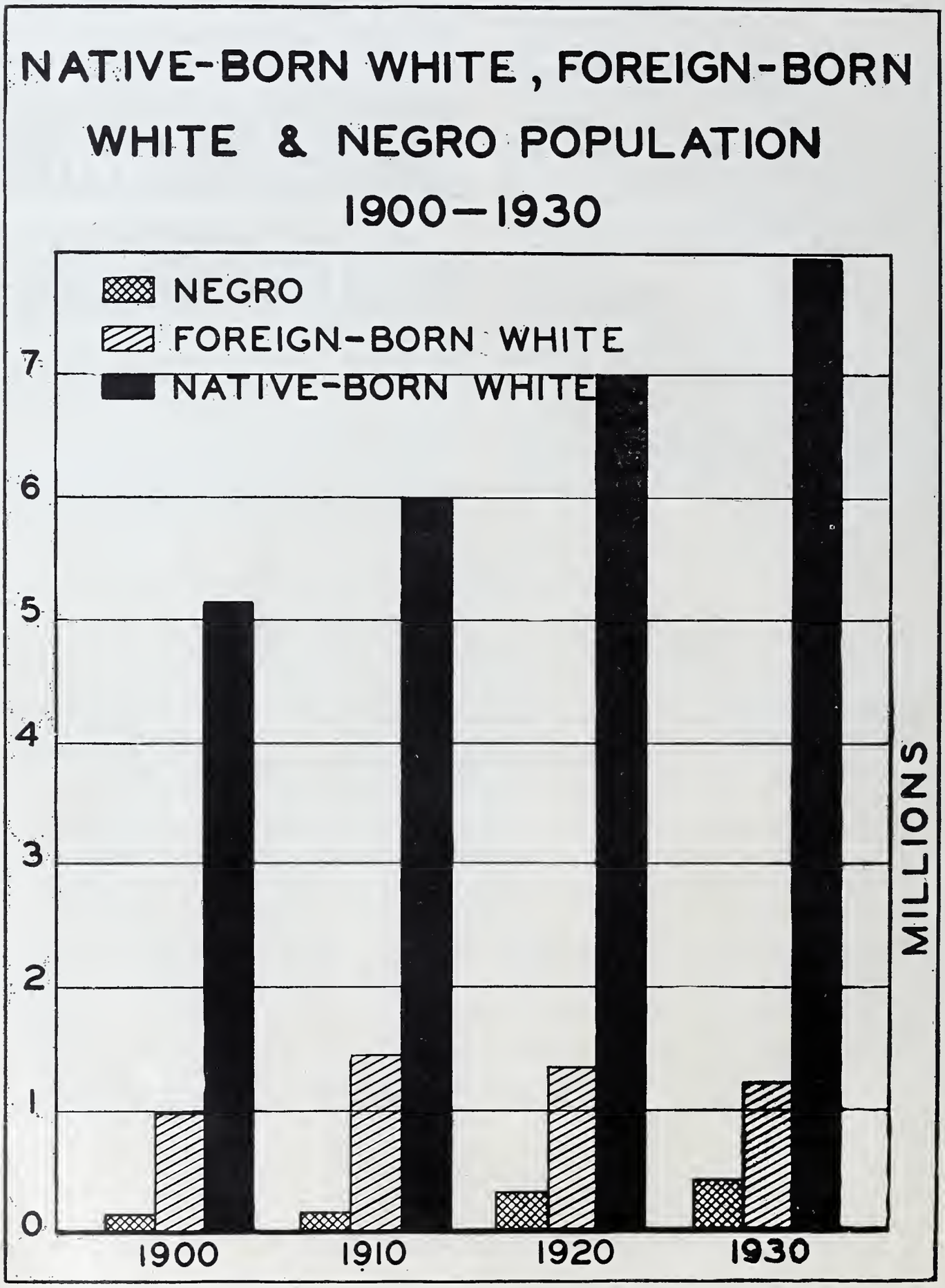
"The great majority of our immigrants came here in early life. They represented the more enterprising element in their respective countries. In many instances they possessed special and very valuable skills and arts. These people have undoubtedly contributed to the youthful and exuberant outlook on life so characteristic of Americans, and have added color and warmth to our civilization.

"On the other hand, the heavy pressure of the newer immigration from countries of lower living standards than our own and the concentration of these people in our cities have given rise to congestion, to problems of law enforcement, to labor difficulties, and a host of other problems which have emphasized the need of an organized plan of Americanization—meaning by this term the directed education of these people and of their children to facilitate their orderly absorption into our American life."

Chart 20 shows the gradual decline in number since 1910 of foreign-born whites in this state, reflecting our more restrictive immigration policy. The increasing number of colored people in Pennsylvania, which reached 4.5 per cent of the total population in 1930, is also shown. It will be seen from the chart that native-born whites comprise the great bulk of our people, accounting in 1930 for 83 per cent of the total.

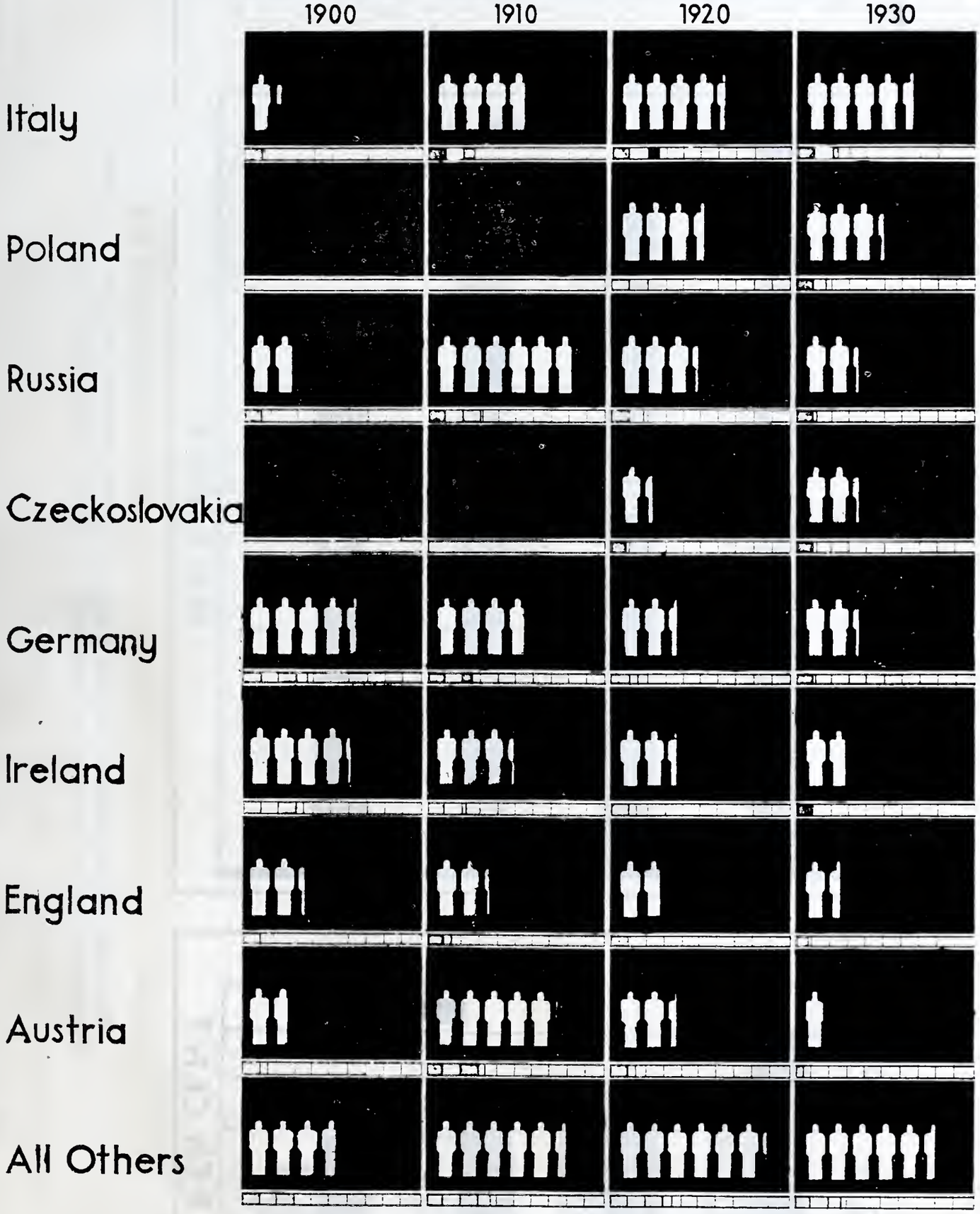
Chart 21, by use of figure symbols, indicates the foreign-born whites in Pennsylvania in 1900, 1910, 1920, and 1930 and their respective countries of origin.

CHART 20


NATIVE-BORN WHITE, FOREIGN-BORN WHITE & NEGRO POPULATION 1900—1930
NEGRO
FOREIGN-BORN WHITE
NATIVE-BORN WHITE
7
6
5
4
3
2
1
0
MILLIONS
1900
1910
1920
1930

Foreign Born White Population

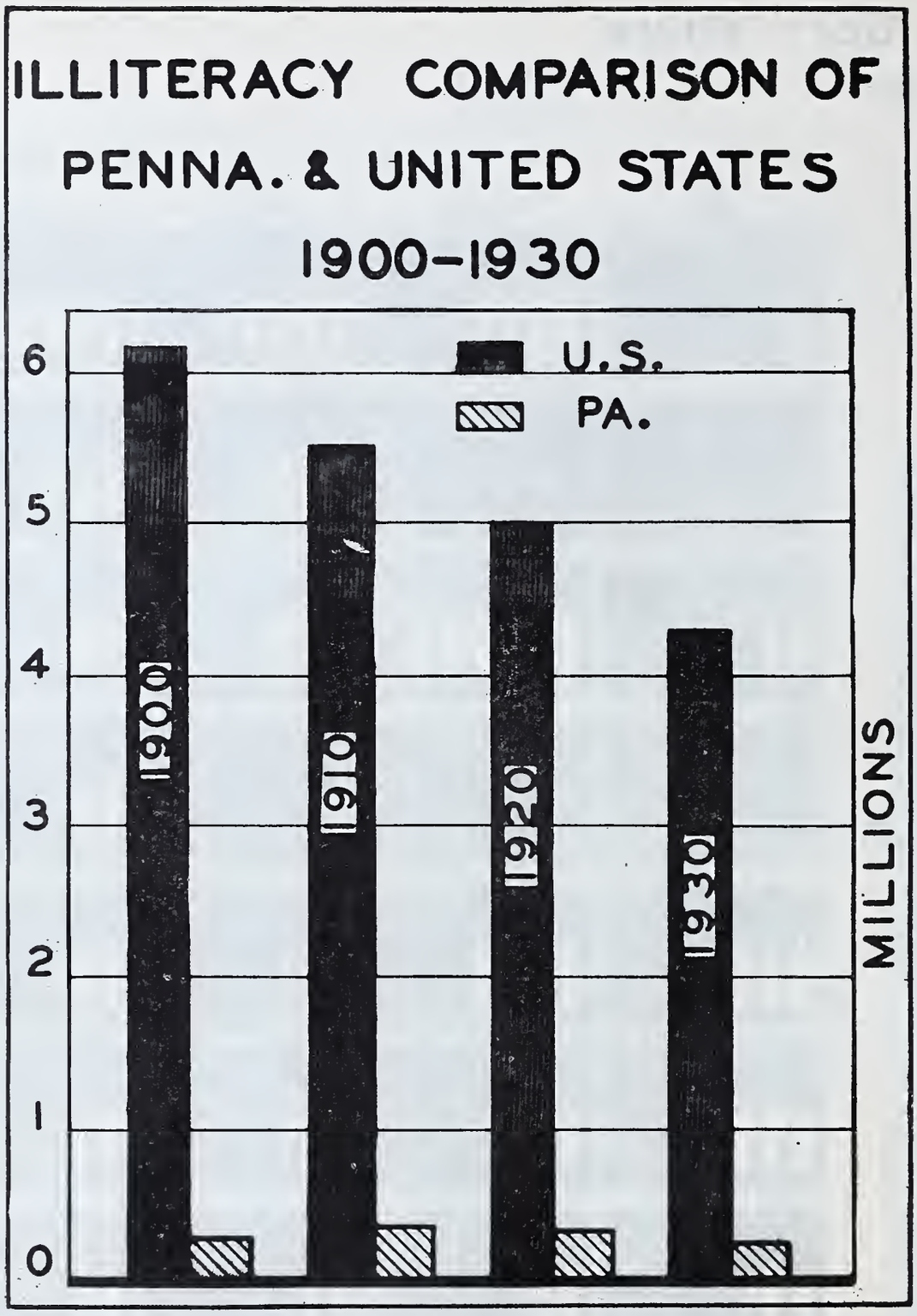
Pennsylvania

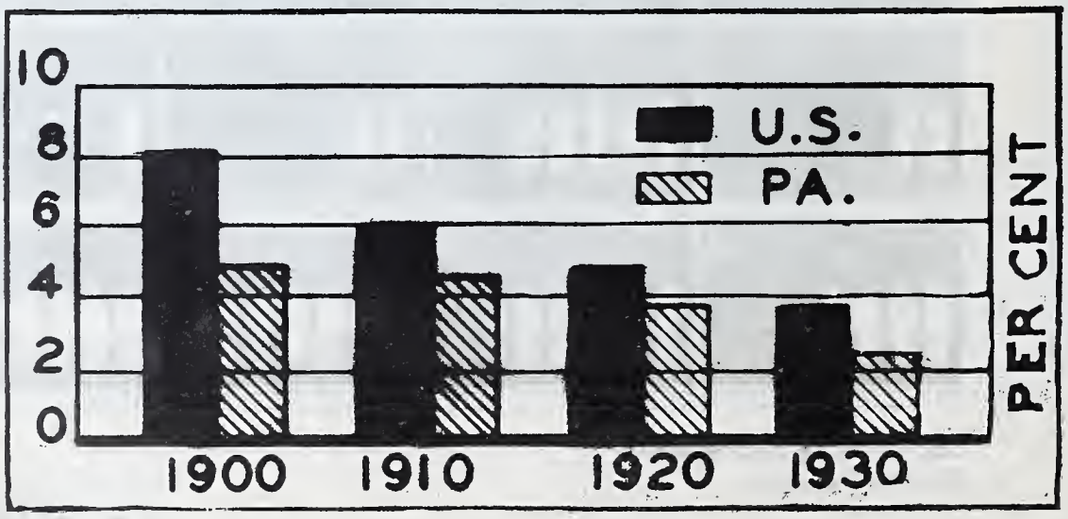


Each Figure Represents
50,000 Persons

0 1 2 3 4 5 6 7 8 9 0
per cent of total population

CHART 22





Illiteracy

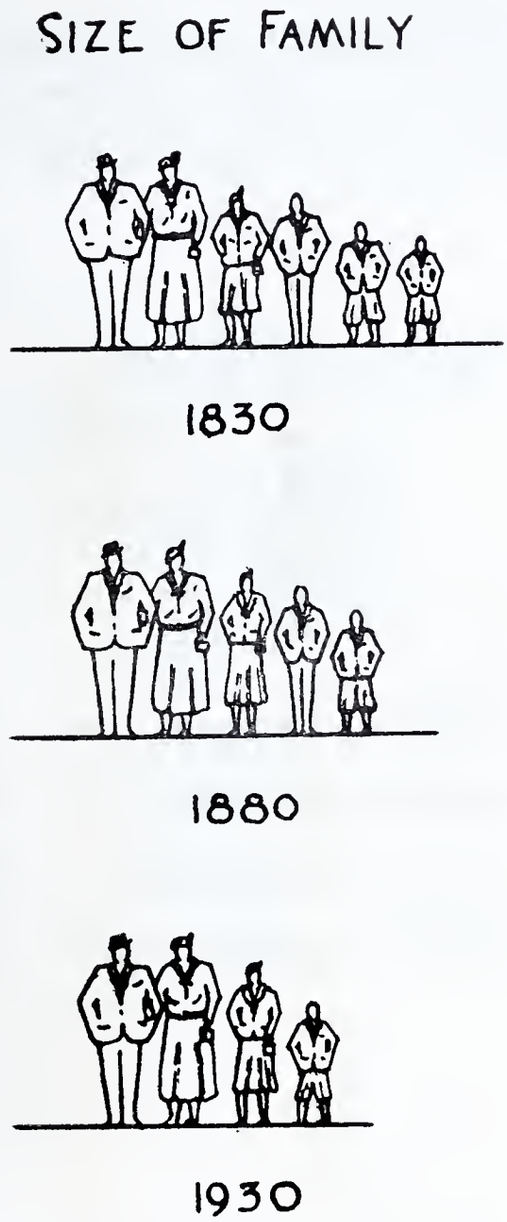
The number and percentage of illiterates in both the United States and Pennsylvania is graphically presented in chart 22. It will be seen that Pennsylvania compared favorably in percentage of illiteracy with the entire country.

Family Status

It is interesting to note that the size of the family in Pennsylvania has changed during the last hundred years. Smaller families and fewer children are greatly in evidence.

The data for chart 23 are taken from the United States census and the term *"family"* signifies any group of persons living together as one household, whether it be one person living alone or several persons living in an apartment. Thus the census family in some cases differs greatly from the natural family. The increasing number of hotels and apartment houses, which are classified as single residences by the Bureau of the Census, tends to exaggerate the size of the natural family in 1930. According to the chart, the size of the average family in Pennsylvania declined from six members in 1830 to four in 1930.

CHART 23

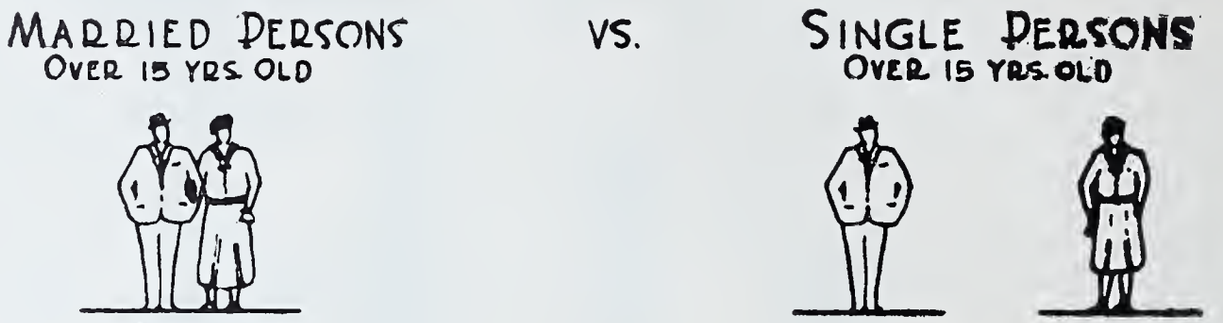


Conjugal State

States vary somewhat as to the percentage of married and single people in their population. This factor determines the birth rate and influences the social and economic condition of the people.

Of the total population of Pennsylvania 15 years of age and over in 1930, married persons comprised 65 percent and single persons 35 percent, as chart 24 shows. These figures do not include widowed and divorced persons. Five per cent more of the people were in the marital class in 1930 than in 1900.

CHART 24



60.0%	2,365,359	—	1900	—	1,562,804	40.0%
62.0%	3,033,862	—	1910	—	1,856,719	38.0%
65.0%	3,532,479	—	1920	—	1,891,281	35.0%
65.0%	4,018,176	—	1930	—	2,154,217	35.0%

Male and Female

As the marital state varies with the section and the period, likewise the percentages of men and women vary. The figures in chart 25 show that the male and female population of Pennsylvania was approximately equal in 1930.

CHART 25

MALE VS. FEMALE POPULATION

3,204,541	–	1900	–	3,097,574
3,942,206	–	1910	–	3,722,905
4,429,020	–	1920	–	4,290,997
4,845,517	–	1930	–	4,785,833

United States and Pennsylvania Birth and Death Rates

At the present time birth and death rates are subjects of much discussion. Space does not permit detailed analysis of these rates, but recent trends may be shown.

The crude birth rate, which is used in this study, is simply the number of births per 1,000 persons in the population. Refined birth rates, on the other hand, are based on the married women capable of producing children, and are used in forecasting and for more detailed studies.

The crude death rate, used in this study, also indicates the deaths per thousand of population. The death rate must also be refined where detailed analyses are made.

Charts 26 and 27 show the general trend of these rates for the United States and Pennsylvania for the ten-year period between 1920 and 1930. For this brief period the falling birth rate and the stabilizing death rate are quite marked.

CHART 26

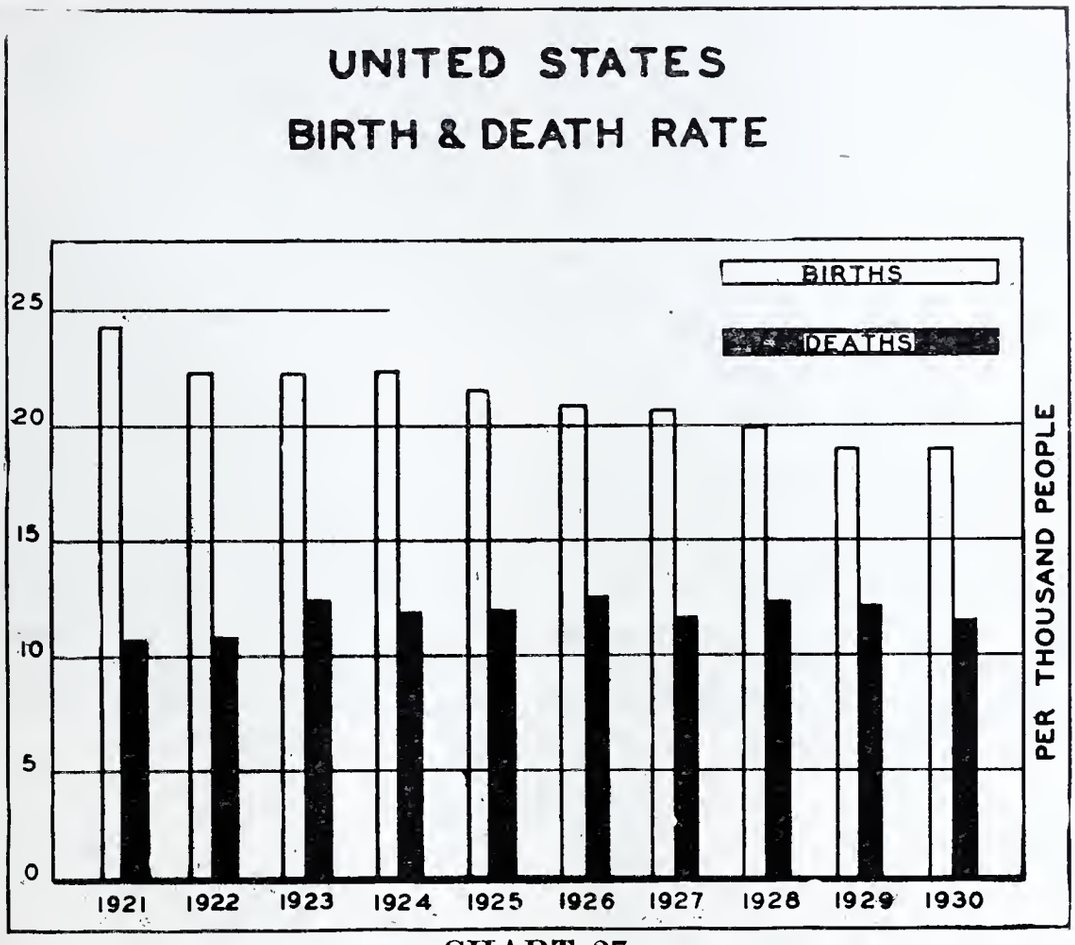
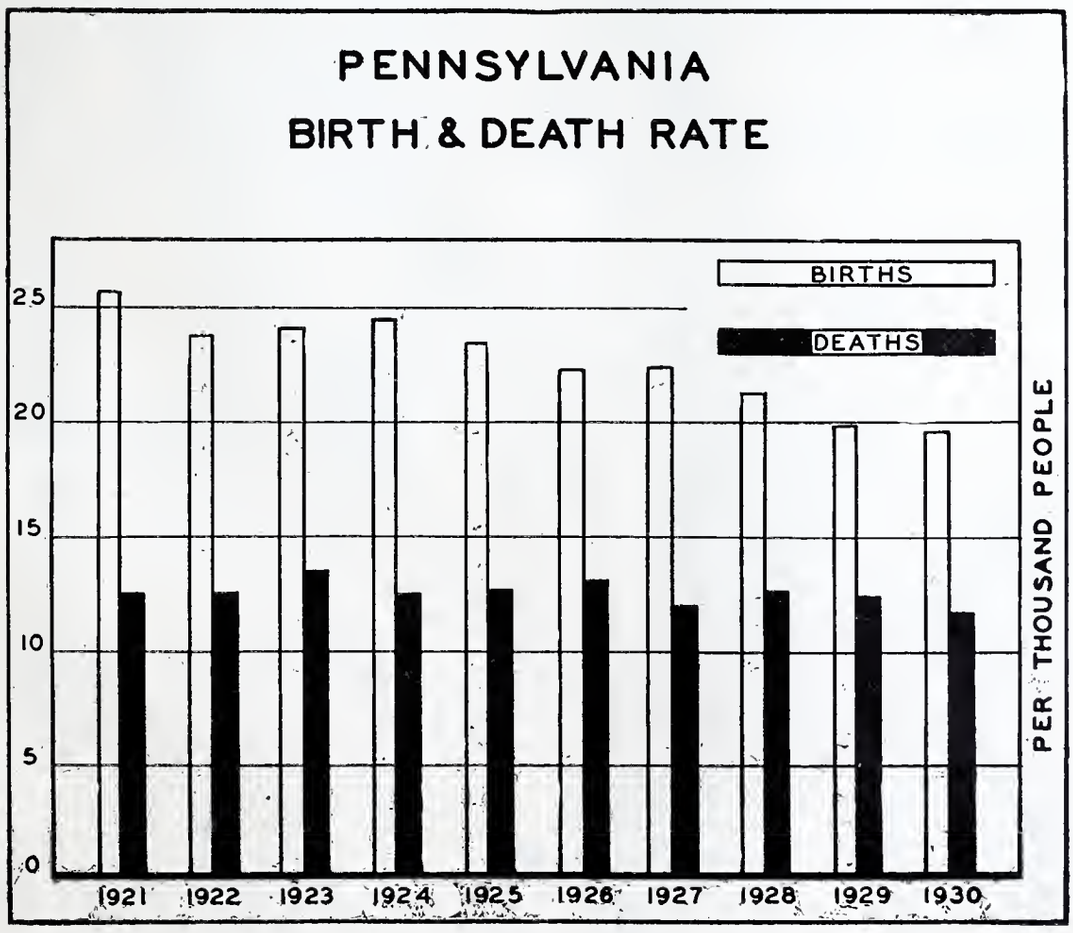


CHART 27



Population Data Basic to Study of Recreational Problems

Study of the number and distribution of people is basic to a consideration of the needs of the people, not only for water supply, transportation and the like, but also for recreation. Density and distribution must also be measured, since these factors determine to a considerable degree the type of recreation that is required. In addition to quantity, density, and distribution, the trend in population growth and decline is a basic guide for planning recreational development. It is as important to put parks where people are as it is to plan for parks where people will be. Age grouping and the changes in composition also furnish basic guides to recreation types which must be recognized. And in certain areas racial characteristics influence recreational programs.

The principal basic factors in the planning of a recreation program are the people and the land. The necessary amount of land depends upon the number of people expected to use it.

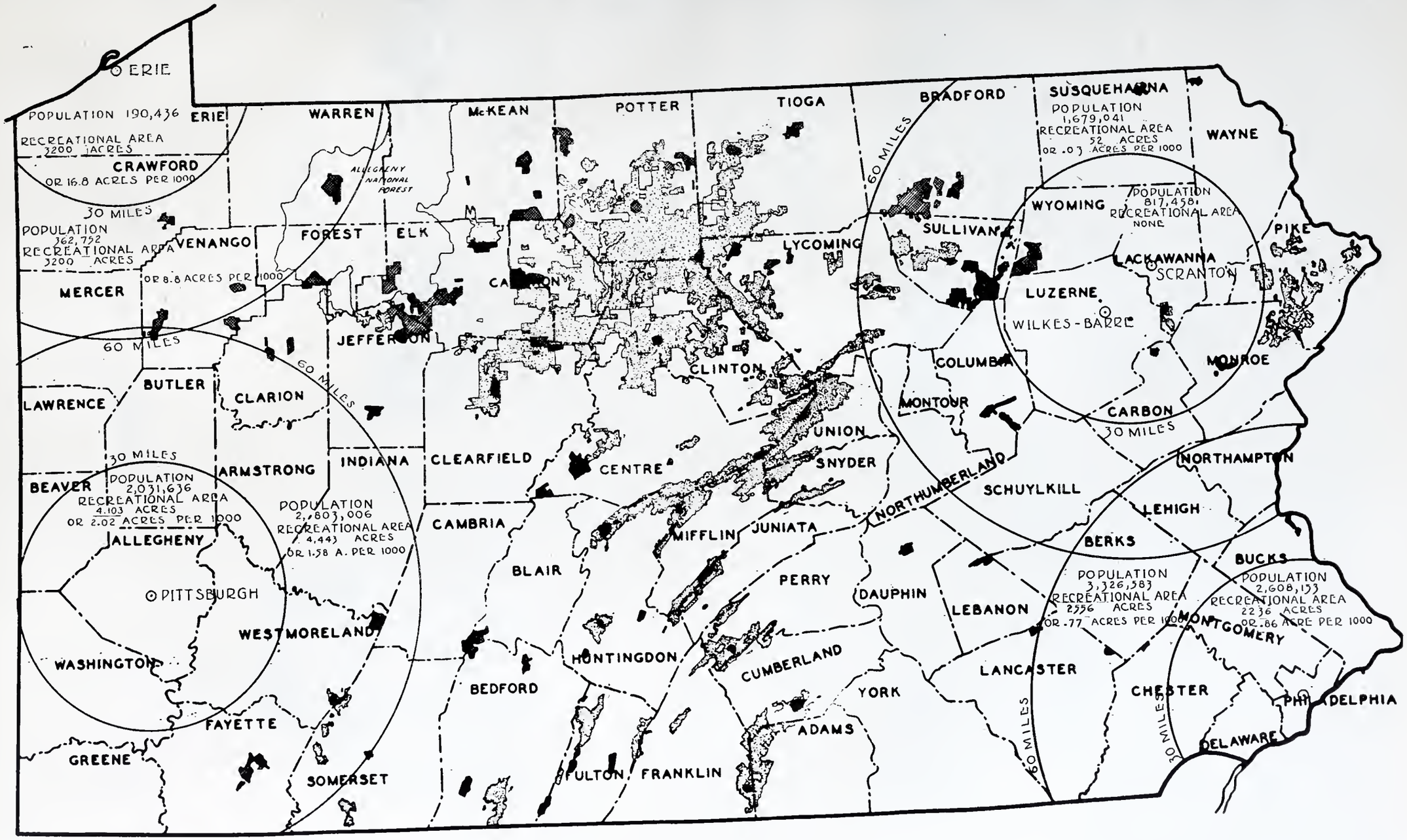
Chart 28 revcals the lack of coordination between state-owned recreational areas and population. In addition to municipal parks it is estimated that there should be at least 10 acres of state and county-owned recreational land per 1,000 people within a 30 to 60-mile radius, these being considered the average and maximum distances that people will go to take advantage of recreational areas for one day's outing.

Four representative metropolitan areas are shown on Chart 28 with existing recreational areas, (state and county) population within the above mentioned radii, and recreational acreage per thousand. The present and future need for more recreational areas, especially near the centers of population is quite evident. The contention is made that unless Pennsylvania provides these recreational areas, people will seek these advantages offered just across the border in other states.

In the recreational studies being conducted by the Council's Bureau of Planning, the foregoing statements will be treated in detail and applied to the various areas of the state.

CHART 28

STATE-OWNED RECREATIONAL AREAS VS. CENTERS OF POPULATION



Effect of the Automobile

The automobile is responsible for much of the spread of population, especially the city-to-suburb movement. Roads spread out everywhere so that machines can travel far and wide. On the other hand, railroads and traction lines are limited to track routes and are not, therefore, as flexible.

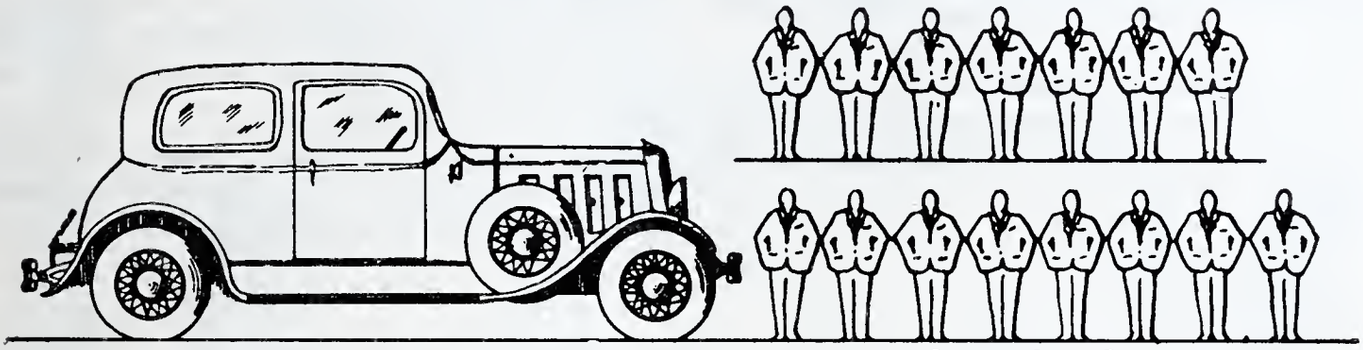
The importance of the "*population on wheels,*" which in many areas exceeds the stationary population, is especially great to places soliciting tourist trade. The amount of tourist travel through Pennsylvania, plus that originating in the state, has assumed immense proportions.

This is due to the fact that all travel to New York and the New England states from the rest of the United States must pass through Pennsylvania. It is the aim of the Greater Pennsylvania Council to encourage tourists to stop and enjoy Pennsylvania's scenic beauty rather than merely to pass through.

Chart 29 shows the changes in the distribution of automobiles in Pennsylvania during the past decade. In 1920 there was one car to every 15 persons in the state. In 1930 there was one car to every five people. The automobile has registered similar gains throughout the United States.

CHART 29

DISTRIBUTION OF AUTOMOBILES
PENNSYLVANIA

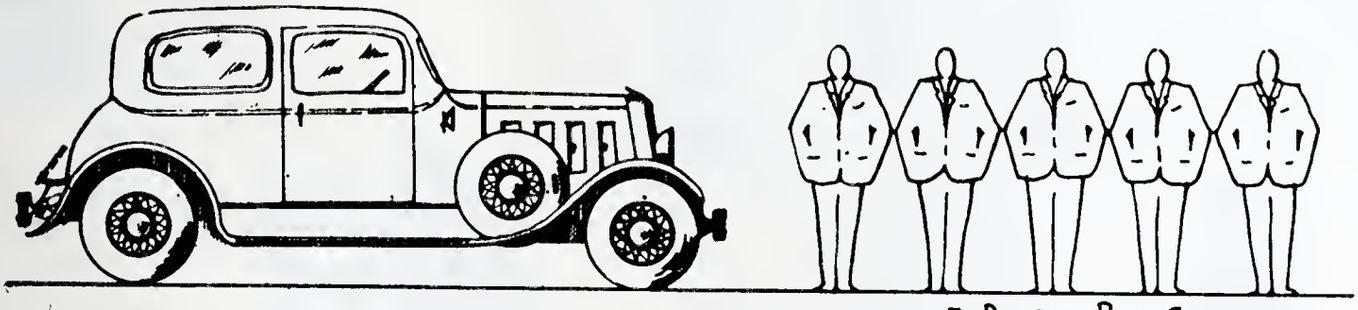


15-PEOPLE PER CAR

1920

AUTOMOBILES
570,164

POPULATION
8,720,017



5-PEOPLE PER CAR

1930

AUTOMOBILES
1,780,919

POPULATION
9,631,350

County Studies

For the benefit of Pennsylvania communities, population changes by decades for the period between 1900 and 1930 have been compiled. This information includes not only the growth or decline by counties, but also by cities, boroughs, and townships. In a few cases the change will be shown for a group of two or more political subdivisions, on account of changes in boundary lines. This information is available for all subdivisions and will be furnished to communities upon request.

In this bulletin information on the two fastest-growing and two of the fastest-declining counties will be shown as samples of the data which can be obtained.

The Two Fastest-Growing Counties

Chart 30 indicates the growth of Delaware County, the fastest-growing county in the state in percentage increase between 1900 and 1930. The growth of sections of this county, especially the area around Upper Darby Township, has been little short of phenomenal. Its growth is attributed to the city-to-suburb movement from the city of Philadelphia which borders it on the east. Its borough and township growth is contrasted in chart 32.

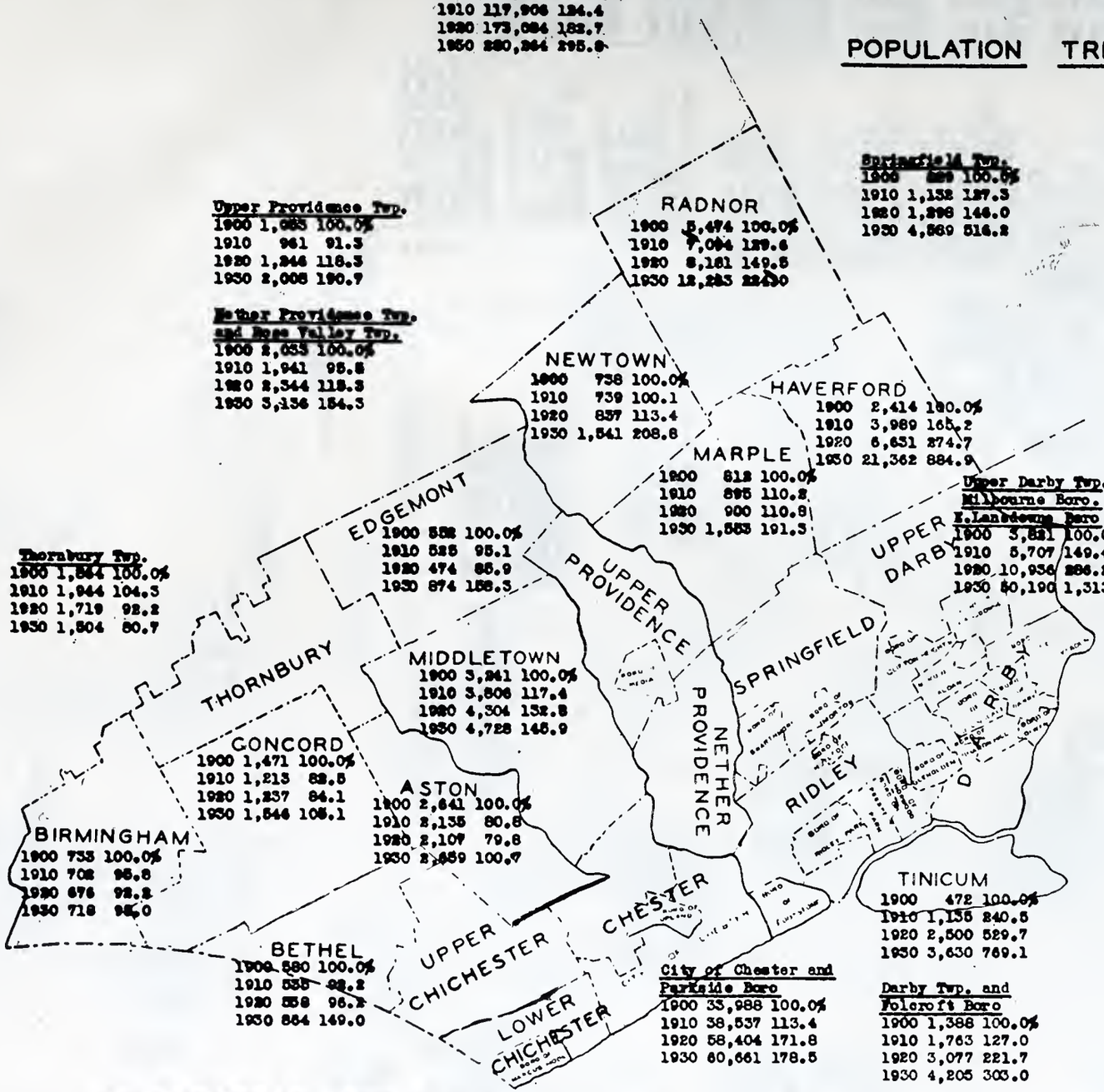
The second ranking county in percentage of increase was Beaver, shown in chart 31. Development here is due primarily to its industry and nearness to Pittsburgh.

The township and borough growth in Beaver County as portrayed in chart 33 shows a marked tendency toward borough development.

DELAWARE COUNTY

POPULATION TRENDS

1900	94,762	100.0%
1910	117,906	124.4
1920	173,084	182.7
1930	280,244	295.8



Upper Providence Twp.

1900	1,683	100.0%
1910	961	91.3
1920	1,246	118.3
1930	2,008	190.7

Nether Providence Twp. and Rose Valley Twp.

1900	2,033	100.0%
1910	1,941	95.5
1920	2,344	115.3
1930	3,136	154.3

Springfield Twp.

1900	889	100.0%
1910	1,132	127.3
1920	1,298	146.0
1930	4,569	514.2

RADNOR

1900	5,474	100.0%
1910	7,094	129.6
1920	8,181	149.5
1930	12,283	224.4

NEWTOWN

1900	738	100.0%
1910	739	100.1
1920	837	113.4
1930	1,541	208.8

HAVERFORD

1900	2,414	100.0%
1910	3,989	165.2
1920	6,631	274.7
1930	21,362	884.9

MARPLE

1900	812	100.0%
1910	895	110.2
1920	900	110.8
1930	1,553	191.3

Upper Darby Twp. Millbourne Boro. E. Lansdowne Boro

1900	3,821	100.0%
1910	5,707	149.4
1920	10,936	286.2
1930	50,190	1,313.5

Thornbury Twp.

1900	1,844	100.0%
1910	1,944	104.3
1920	1,719	92.2
1930	1,504	80.7

EDGEMONT

1900	552	100.0%
1910	525	95.1
1920	474	85.9
1930	874	158.3

MIDDLETOWN

1900	3,241	100.0%
1910	3,806	117.4
1920	4,304	132.8
1930	4,728	145.9

CONCORD

1900	1,471	100.0%
1910	1,213	82.5
1920	1,237	84.1
1930	1,546	105.1

ASTON

1900	2,641	100.0%
1910	2,135	80.8
1920	2,107	79.8
1930	2,659	100.7

BIRMINGHAM

1900	733	100.0%
1910	702	95.8
1920	676	92.2
1930	718	98.0

BETHEL

1900	580	100.0%
1910	535	92.2
1920	558	96.2
1930	864	149.0

City of Chester and Parkside Boro

1900	33,988	100.0%
1910	38,537	113.4
1920	58,404	171.8
1930	60,661	178.5

Darby Twp. and Folcroft Boro

1900	1,388	100.0%
1910	1,763	127.0
1920	3,077	221.7
1930	4,205	303.0

TINICUM

1900	472	100.0%
1910	1,136	240.5
1920	2,500	529.7
1930	3,630	769.1

Upper Chichester Twp.

1900	601	100.0%
1910	671	111.6
1920	1,577	262.4
1930	3,743	622.8

Lower Chichester Twp. and Trainer Boro

1900	1,425	100.0%
1910	1,250	87.7
1920	3,948	277.1
1930	5,121	359.4

Chester Twp.

1900	543	100.0%
1910	615	113.3
1920	675	124.3
1930	2,073	381.8

Ridley Twp.

1900	1,973	100.0%
1910	2,945	149.3
1920	5,342	270.8
1930	8,326	422.0

Aldan Boro

1900	296	100.0%
1910	661	223.3
1920	1,136	383.8
1930	2,269	766.6

Clifton Heights Boro

1900	2,330	100.0%
1910	3,155	135.4
1920	3,469	148.9
1930	5,057	217.0

Collingdale Boro

1900	603	100.0%
1910	1,361	225.7
1920	3,854	636.8
1930	7,857	1,303.0

Colwyn Boro

1900	1,228	100.0%
1910	1,584	129.2
1920	1,859	151.6
1930	2,064	168.4

Darby Boro

1900	3,429	100.0%
1910	6,305	183.9
1920	7,928	231.0
1930	9,899	288.7

Eddystone Boro

1900	776	100.0%
1910	1,167	150.4
1920	2,670	344.1
1930	2,414	311.1

Glenolden Boro

1900	873	100.0%
1910	1,157	132.5
1920	1,944	222.7
1930	4,482	513.4

Lansdowne Boro

1900	2,630	100.0%
1910	4,066	154.6
1920	4,797	182.4
1930	9,542	362.8

Marcus Hook Boro

1900	1,209	100.0%
1910	1,573	130.1
1920	5,324	440.4
1930	4,867	402.6

Media Boro

1900	3,075	100.0%
1910	3,562	115.8
1920	4,109	133.6
1930	5,372	174.7

Morton Boro

1900	889	100.0%
1910	1,071	120.5
1920	1,212	136.3
1930	1,341	150.8

Norwood Boro

1900	1,286	100.0%
1910	1,648	128.7
1920	2,353	183.0
1930	3,878	301.6

Prospect Park Boro

1900	1,050	100.0%
1910	1,656	157.6
1920	2,536	241.5
1930	4,623	440.3

Ridley Park Boro

1900	1,254	100.0%
1910	1,761	142.7
1920	2,315	187.4
1930	3,356	272.0

Rutledge Boro

1900	369	100.0%
1910	523	141.7
1920	711	192.7
1930	789	213.8

Sharon Hill Boro

1900	1,088	100.0%
1910	1,401	132.4
1920	1,780	168.2
1930	3,825	361.5

Swarthmore Boro

1900	903	100.0%
1910	1,899	210.3
1920	2,350	260.2
1930	3,406	377.1

Upland Boro

1900	2,131	100.0%
1910	2,221	104.2
1920	2,486	116.7
1930	2,500	117.3

Yeadon Boro

1900	689	100.0%
1910	882	128.0
1920	1,308	189.8
1930	5,430	788.1

BEAVER COUNTY
POPULATION TRENDS

BEAVER COUNTY
1900 56,432 100.0%
1910 78,383 138.8
1920 111,621 197.8
1930 149,062 264.1

DARLINGTON
1900 1,285 100.0%
1910 1,137 88.5
1920 1,141 88.8
1930 1,157 90.0

Big Beaver Twp. Homewood Boro. and Koppel Boro
1900 1,380 100.0%
1910 1,442 104.5
1920 2,002 145.1
1930 2,652 192.2

DARLINGTON BORO
1900 270 100.0%
1910 311 115.2
1920 347 128.5
1930 465 172.2

SOUTH BEAVER
1900 930 100.0%
1910 735 79.0
1920 757 81.4
1930 655 70.4

BIG BEAVER

NEW GALILEE BORO
1900 327 100.0%
1910 453 138.5
1920 475 145.3
1930 489 149.5

KOPPEL BORO

HOMEWOOD BORO

Chippewa Twp.
1900 527 100.0%
1910 494 93.7
1920 535 101.5
1930 1,128 214.0

CHIPPEWA

Patterson Twp.
1900 433 100.0%
1910 434 100.2
1920 875 202.1
1930 1,846 426.3

Patterson Heights Boro.
1900 272 100.0%
1910 367 134.9
1920 459 168.8
1930 639 234.9

WEST MAYFIELD BORO

WHITE

PATTERSON

PATTERSON HGTS BORO

NORTH SEWICKLEY and Ellwood City
1900 1,660 100.0%
1910 1,820 109.6
1920 2,403 144.8
1930 3,574 215.3

White Twp. and West Mayfield Boro
1900 491 100.0%
1910 633 128.9
1920 1,221 248.7
1930 1,907 388.4

FRANKLIN
1900 810 100.0%
1910 935 115.4
1920 1,134 140.0
1930 1,713 211.5

MARION
1900 380 100.0%
1910 331 87.1
1920 396 104.2
1930 442 116.3

EASTVALE BORO

DAUGHERTY
1900 533 100.0%
1910 699 131.1
1920 640 120.1
1930 1,115 208.2

NEW SEWICKLEY
1900 1,592 100.0%
1910 1,482 93.1
1920 1,378 86.6
1930 1,813 113.9

BEAVER FALLS

PULASKI

Pulaski Twp.
1900 728 100.0%
1910 805 110.6
1920 915 125.7
1930 1,640 225.3

Beaver Falls City and College Hill Boro
1900 10,944 100.0%
1910 13,978 127.7
1920 15,445 141.1
1930 17,147 156.7

NEW BRIGHTON BORO

BRIGHTON
1900 687 100.0%
1910 755 109.9
1920 764 111.2
1930 1,043 151.8

FALLSTON BORO

ROCHESTER

Rochester Twp. and E. Rochester Boro
1900 1,661 100.0%
1910 1,945 117.1
1920 2,408 145.0
1930 3,095 186.3

Freedom Boro
1900 1,783 100.0%
1910 3,060 171.6
1920 3,452 193.6
1930 3,227 181.0

BRIDGEWATER BORO

ROCHESTER BORO

EAST ROCHESTER BORO

BEAVER BORO

MONACA BORO

FREEDOM BORO

MOON

CONWAY BORO

OHIO
1900 939 100.0%
1910 984 104.8
1920 962 102.4
1930 958 102.0

Glasgow Boro
1900 172 100.0%
1910 203 118.0
1920 239 139.0
1930 271 157.6

Borough Twp.
1900 618 100.0%
1910 639 104.4
1920 670 109.5
1930 885 144.6

BOROUGH

POTTER

INDUSTRY & Midland Boro
1900 664 100.0%
1910 2,008 302.4
1920 6,286 946.7
1930 7,003 1,054.7

CENTER

Moon Twp.
1900 1,095 100.0%
1910 2,161 197.4
1920 1,524 139.2
1930 2,173 198.4

ECONOMY and Conway Boro
1900 1,062 100.0%
1910 2,343 220.6
1920 2,702 254.4
1930 3,152 296.8

GLASGOW BORO

MIDLAND BORO

GEORGETOWN BORO

SHIPPINGPORT BORO

ALIQUIPPA BORO

BADEN BORO

Baden Boro
1900 427 100.0%
1910 601 140.7
1920 896 209.8
1930 1,924 450.6

GREENE Twp.

Shippinport Boro
1900 1,023 100.0%
1910 1,005 98.2
1920 990 96.8
1930 991 96.9

RACCOON Twp.

Potter Twp. & Center Twp.
1900 814 100.0%
1910 718 88.2
1920 1,308 160.7
1930 2,172 266.8

Aliquippa Boro, Hopewell Twp., Woodlawn Boro, and South Heights Boro
1900 1,956 100.0%
1910 4,886 249.8
1920 17,988 919.0
1930 29,843 1,518.0

HOOKSTOWN BORO
1900 259 100.0%
1910 250 96.5
1920 191 73.7
1930 203 78.4

Georgetown Boro
1900 271 100.0%
1910 269 99.3
1920 251 92.6
1930 260 95.9

HOPEWELL

HARMONY

Harmony Twp. Ambridge Boro
1900 680 100.0%
1910 5,384 819.1
1920 18,804 1,969.8
1930 21,111 3,247.8

AMBRIDGE BORO

SOUTH HEIGHTS BORO

INDEPENDENCE
1900 610 100.0%
1910 588 96.4
1920 489 80.2
1930 478 78.4

HANOVER
1900 1,031 100.0%
1910 911 88.4
1920 850 82.4
1930 741 71.9

Frankfort Springs Boro
1900 128 100.0%
1910 144 112.5
1920 95 74.2
1930 110 85.9

FRANKFORT SPRINGS BORO

Eastvale Boro
1900 284 100.0%
1910 322 125.8
1920 479 167.6
1930 601 234.8

New Brighton Boro
1900 6,820 100.0%
1910 8,329 122.1
1920 9,361 137.3
1930 9,950 145.9

Fallston Boro
1900 649 100.0%
1910 655 101.1
1920 470 86.6
1930 665 181.1

Bridgewater Boro
1900 1,347 100.0%
1910 1,562 116.0
1920 1,340 99.5
1930 1,792 133.0

Rochester Boro
1900 4,688 100.0%
1910 5,905 125.9
1920 6,987 148.4
1930 7,726 164.8

Beaver Boro
1900 2,348 100.0%
1910 3,456 147.3
1920 4,136 176.1
1930 5,065 241.3

Monaca Boro
1900 2,008 100.0%
1910 3,276 163.1
1920 3,638 181.1
1930 4,641 231.1

CHART 32

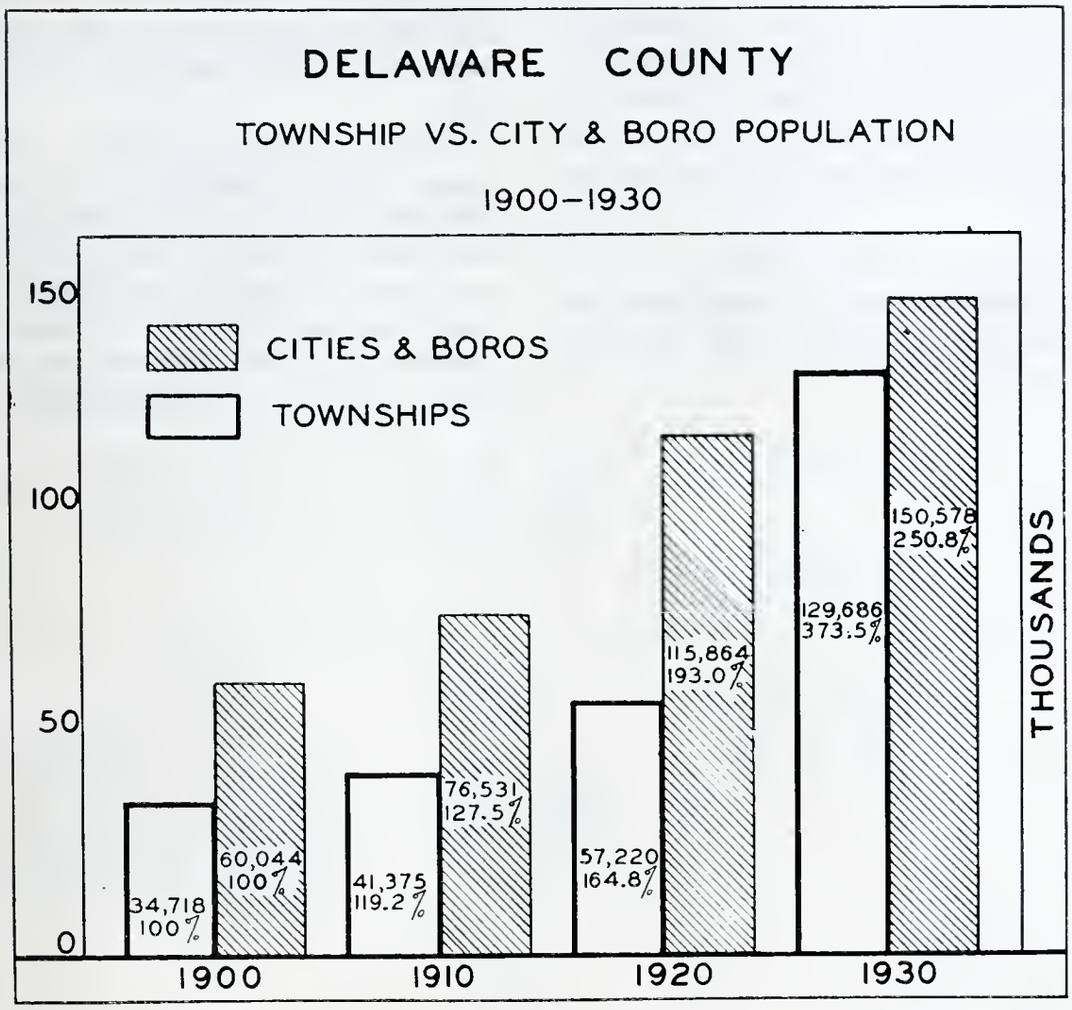
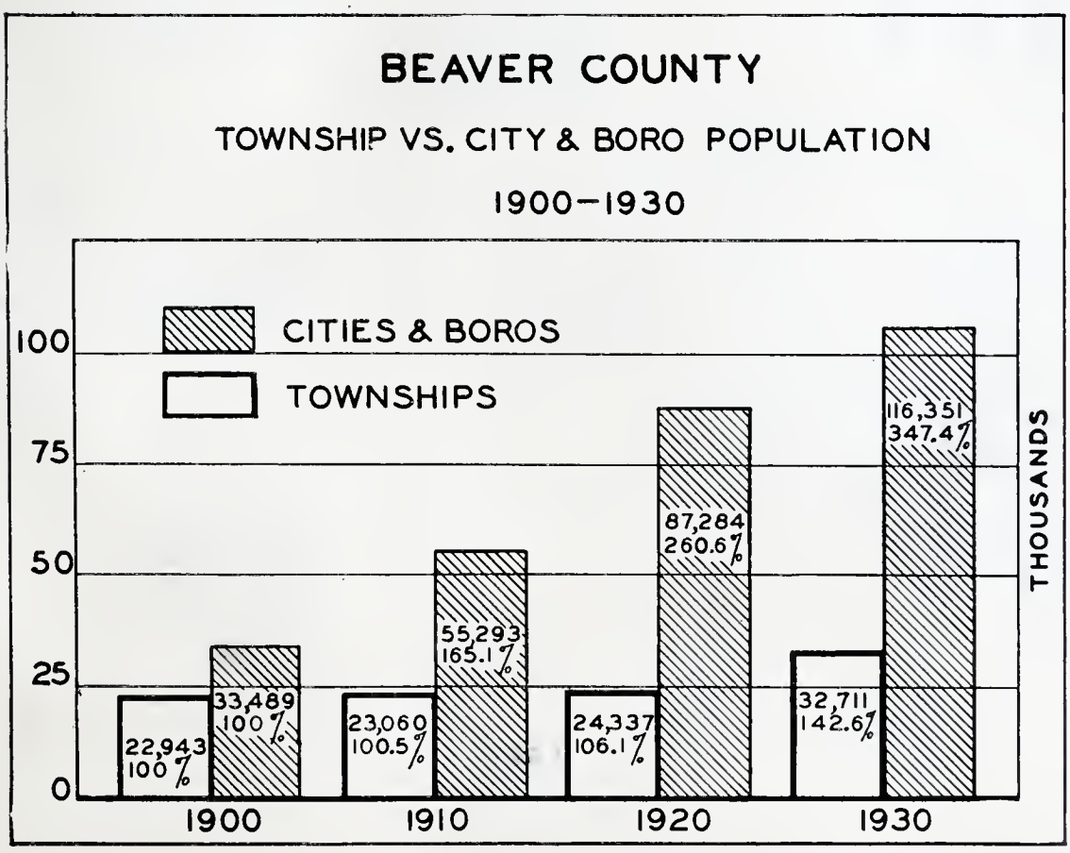


CHART 33



Fastest-Declining Counties

As Delaware and Beaver, the fastest-growing counties, are typical of the centers of population and industry, so Potter and Tioga, the fastest-declining counties, with the single exception of Forest County, whose population in 1930 was only 5,180, are typical of the rural and agricultural districts.

Chart 34 shows the rapid decline of Potter County since 1900 and chart 36 reveals that this decrease has been chiefly confined to the townships or outlying districts.

Tioga ranks second among the fastest-declining counties, as shown in chart 35. The analysis of township and borough decline in chart 37 shows that, as in Potter County, the decline in Tioga has been chiefly in the townships or outlying districts.

In counties of this type the Greater Pennsylvania Council, cooperating with local organizations and individuals, will endeavor to determine if it is not possible to rehabilitate these areas by new types of business or industry, or in other ways. In Tioga County, for example, the recent discovery of natural resources may shape, to some extent, this policy of rehabilitation.

CHART 34

POTTER COUNTY

POPULATION TRENDS, 1900 - 1930

Shinglehouse borough incorporated from part of Sharon twp. in 1902

SHARON TWP. AND SHINGLEHOUSE BORO

1900	1,443	100.0%
1910	2,644	183.2
1920	1,981	137.3
1930	2,025	140.3

SHINGLEHOUSE BOROUGH

1910	1,598
1920	1,169
1930	1,380

Oswayo borough incorporated from part of Oswayo twp. in 1901

OSWAYO TOWNSHIP AND BOROUGH

1900	1,584	100.0%
1910	886	55.9
1920	515	32.5
1930	358	22.6

OSWAYO BOROUGH

1910	382
1920	209
1930	133

GENESEE

1900	1,179	100.0%
1910	980	83.1
1920	935	79.3
1930	773	65.6

BINGHAM

1900	911	100.0%
1910	748	82.1
1920	657	72.1
1930	576	63.2

HARRISON

1900	1,826	100.0%
1910	1,462	80.1
1920	1,201	65.8
1930	1,016	55.6

PLEASANT VALLEY

1900	276	
1910	255	
1920	125	
1930	99	
1900		100.0%
1910		92.4
1920		45.3
1930		35.9

CLARA

1900	414	
1910	259	
1920	158	
1930	123	
1900		100.0%
1910		62.6
1920		38.2
1930		29.7

HEBRON

1900	915	100.0%
1910	658	71.9
1920	537	58.7
1930	453	49.5

ALLEGANY

1900	928	100.0%
1910	675	72.7
1920	527	56.8
1930	407	43.9

ULYSSES

1900	891	100.0%
1910	1,074	120.3
1920	732	82.2
1930	487	54.7

LEWISVILLE BOROUGH

1900	619	100.0%
1910	579	93.5
1920	526	85.0
1930	514	83.0

HECTOR

1900	1,134	100.0%
1910	817	72.0
1920	544	48.0
1930	411	36.2

ROULETTE

1900	1,127	100.0%
1910	1,383	122.7
1920	1,405	124.7
1930	1,065	94.5

EULALIA

1900	1,215	
1910	1,218	
1920	441	
1930	379	
1900		100.0%
1910		100.2
1920		36.3
1930		31.2

COUDERSPORT BORO

1900	3,217	100.0%
1910	3,100	96.4
1920	2,836	88.2
1930	2,740	85.2

SWEDEN

1900	612	100.0%
1910	655	107.0
1920	420	68.6
1930	411	67.2

PIKE

1900	537	100.0%
1910	463	86.2
1920	326	60.7
1930	282	52.5

GALETON BOROUGH

1900	2,415	100.0
1910	4,027	166.7
1920	2,969	122.9
1930	2,200	91.1

KEATING

1900	784	100.0%
1910	714	91.1
1920	258	32.9
1930	299	38.1

HOMER

1900	209	100.0%
1910	176	84.2
1920	187	89.5
1930	125	59.8

SUMMIT

1900	528	100.0%
1910	278	52.7
1920	204	38.6
1930	146	27.7

WEST BRANCH

1900	1,022	100.0%
1910	872	85.3
1920	530	51.9
1930	462	45.2

PORTAGE

1900	1,088	100.0%
1910	447	41.1
1920	298	27.4
1930	199	18.3

AUSTIN BOROUGH

1900	2,300	100.0%
1910	2,941	127.9
1920	1,556	67.7
1930	1,116	48.5

SYLVANIA

1900	577	100.0%
1910	487	84.4
1920	385	66.7
1930	132	22.9

EAST FORK DISTRICT

Part of Eulalia Township

ABBOTT

1900	727	100.0%
1910	706	97.1
1920	502	69.1
1930	422	58.0

WHARTON

1900	844	100.0%
1910	508	60.2
1920	232	27.5
1930	185	21.9

STEWARDSON

1900	1,299	100.0%
1910	717	55.2
1920	102	7.9
1930	84	6.5

POTTER COUNTY

1900	30,621	100.0%
1910	29,729	97.1
1920	21,089	68.9
1930	17,489	57.1

CHART 35

TIOGA COUNTY

POPULATION TRENDS, 1900 - 1930

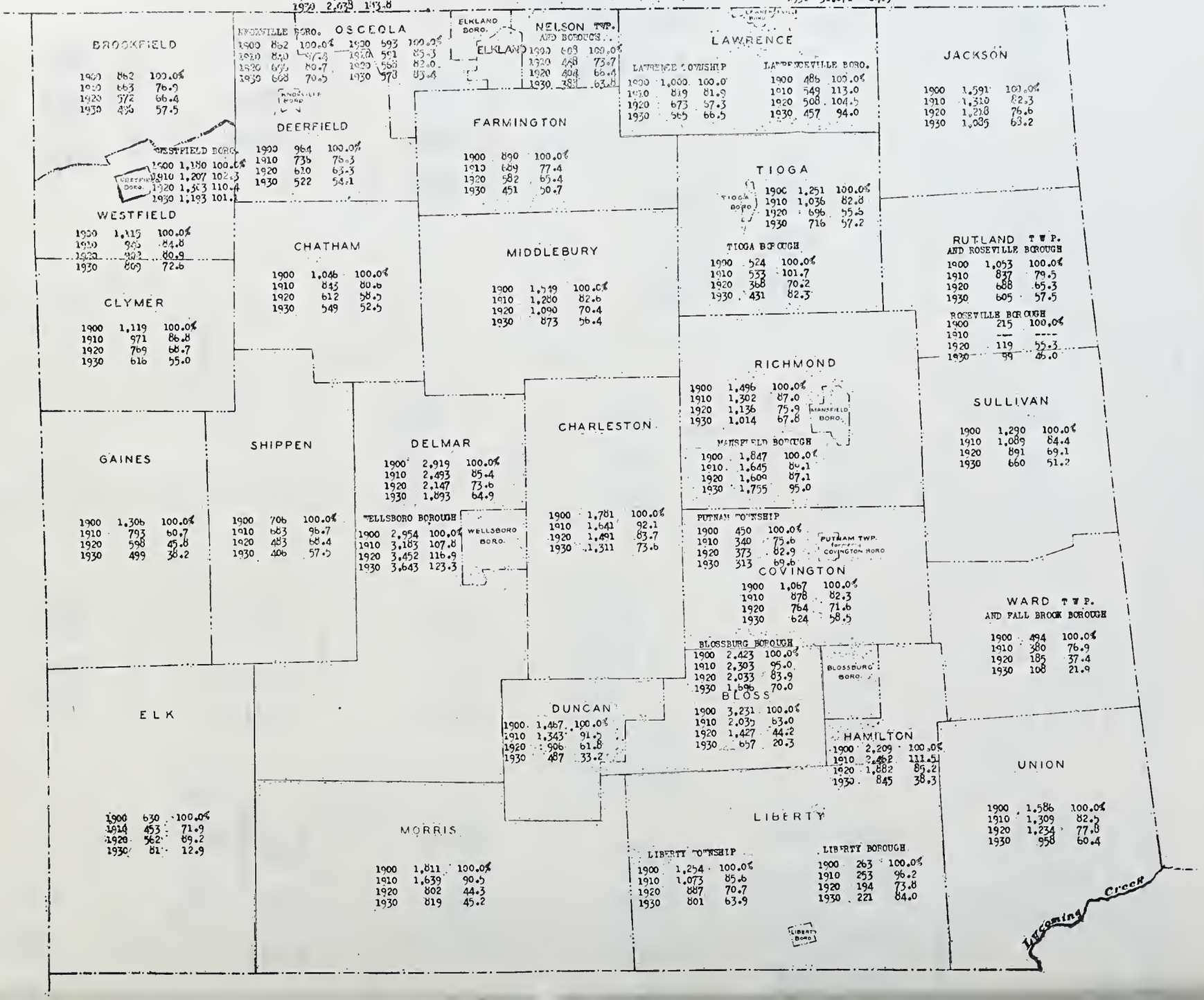


CHART 36

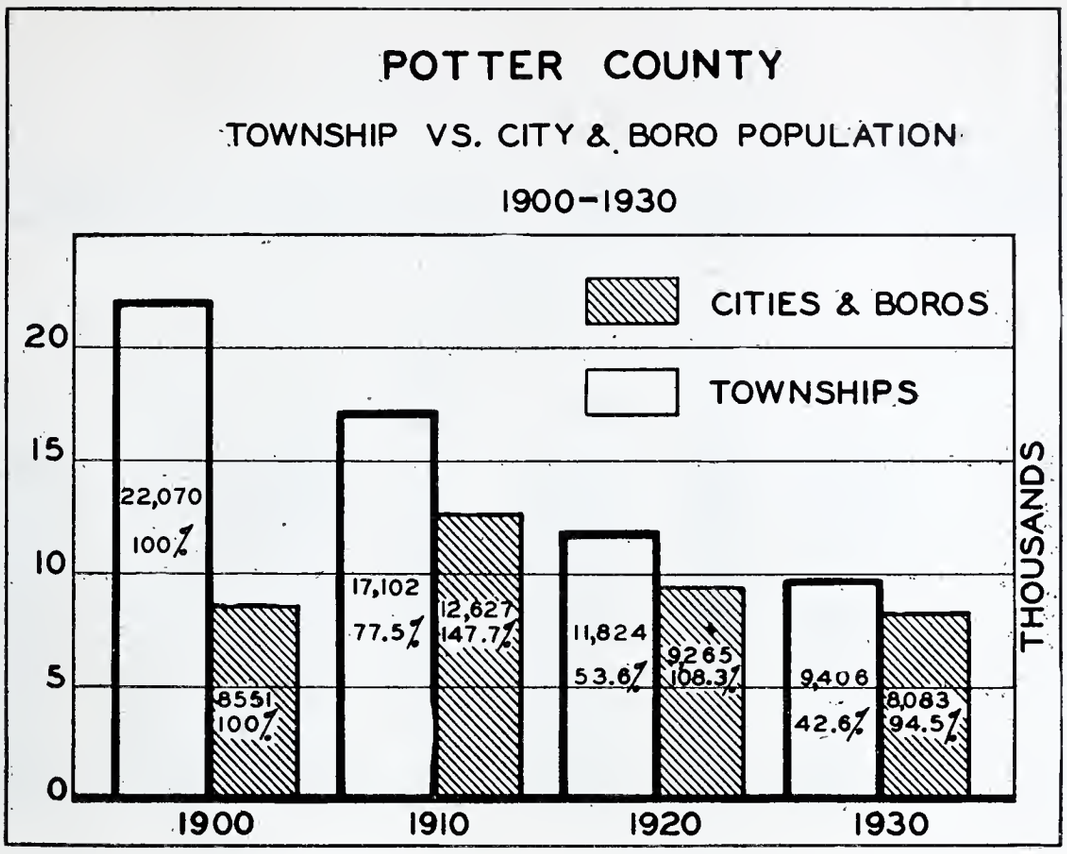
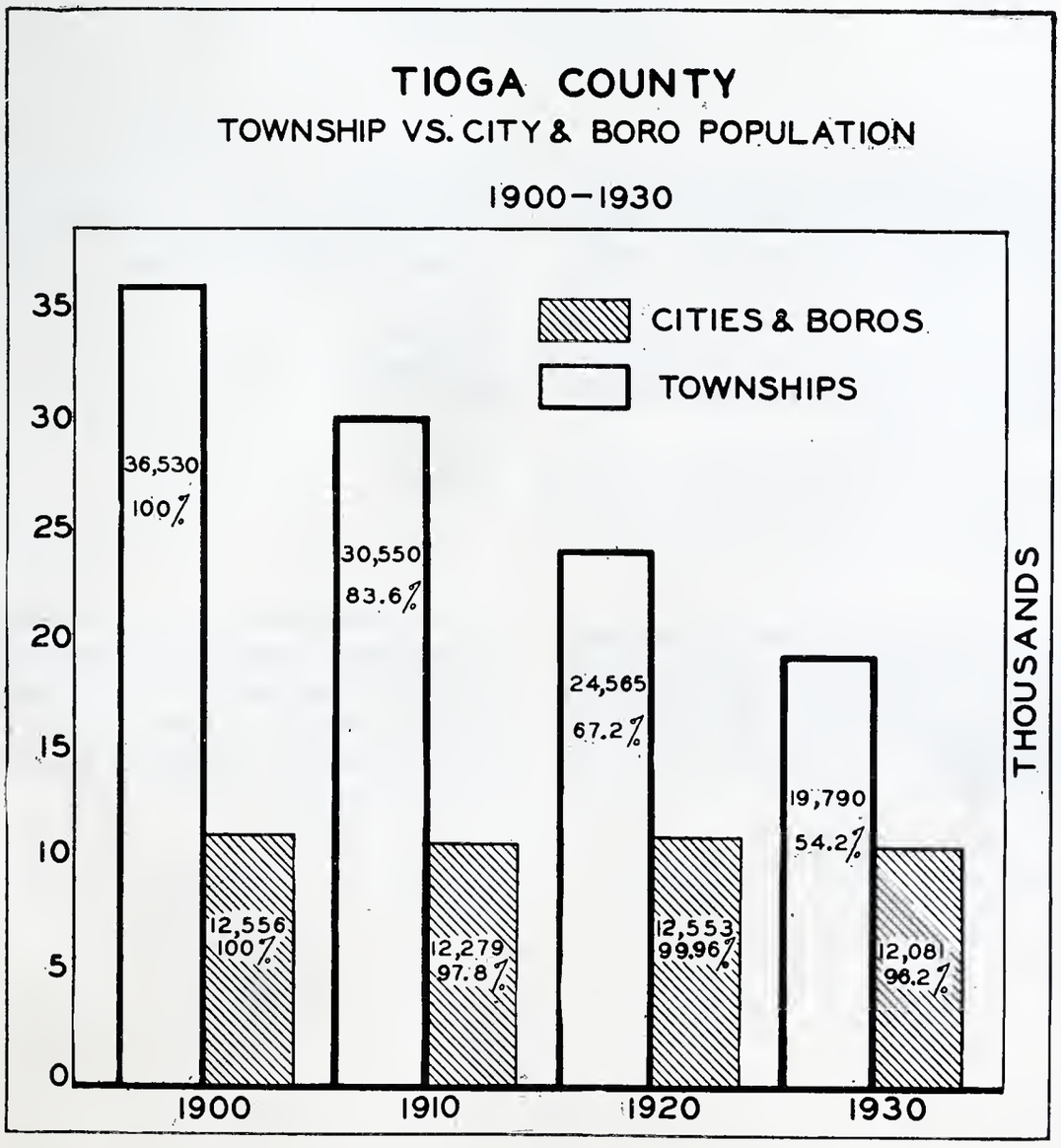


CHART 37



Large Cities of Pennsylvania

Table III records the ten largest cities of Pennsylvania, according to the 1930 census, and also shows the growth and percentage increase for each for the period between 1900 and 1930.

TABLE III

	1900	% of 1900	1910	% of 1900	1920	% of 1900	1930	% of 1900
Philadelphia	1,293,697	100.0	1,549,008	119.7	1,823,779	141.0	1,950,961	150.8
Pittsburgh	451,512	100.0	533,905	118.2	588,343	130.3	669,817	148.3
Scranton	102,026	100.0	129,867	127.3	137,783	135.0	143,433	140.6
Erie	52,733	100.0	66,525	126.2	93,372	177.1	115,967	219.9
Reading	78,961	100.0	96,071	121.7	107,784	136.5	111,171	140.8
Allentown	35,416	100.0	51,913	146.6	73,502	207.5	92,563	261.4
Wilkes-Barre	51,721	100.0	67,105	129.7	73,833	142.8	86,626	167.5
Altoona	38,973	100.0	52,127	133.8	60,331	154.8	82,054	210.5
Harrisburg	50,167	100.0	64,186	127.9	75,917	151.3	80,339	160.1
Johnstown	35,936	100.0	55,482	154.4	67,327	187.4	66,993	186.4

*Metropolitan Districts**

It is interesting to note in the latest population report of the United States Bureau of the Census that Pennsylvania leads the states in the number of metropolitan districts of over 100,000. In size Philadelphia and Pittsburgh rank third and seventh, respectively, among the metropolitan areas of the United States and the Scranton-Wilkes-Barre districts stands 17th.

Table IV records the ten metropolitan districts of Pennsylvania, listed according to the number of people they contain.

*A metropolitan district is briefly defined as that area, in addition to the central city or cities, having a density of not less than 150 inhabitants per square mile and also, as a rule, those civil divisions of less density that are directly contiguous to the central cities, or are entirely or nearly surrounded by minor civil divisions that have the required density.

TABLE IV

Philadelphia	2,847,148
Pittsburgh	1,953,668
Scranton-Wilkes-Barre	652,312
Allentown-Bethlehem-Easton	322,172
Reading	170,486
Harrisburg	161,672
Johnstown	147,611
Erie	129,817
Lancaster	123,156
Altoona	114,232
Total	6,622,274

The development of those areas again reveals the tendency toward mass-living and shifting to centers of population. As shown in table IV 6,622,274 people, or nearly 70 per cent of Pennsylvania's entire population, now live in metropolitan districts.

CHAPTER IV

Probable Future Growth and Distribution

CHAPTER IV

PROBABLE FUTURE GROWTH, QUALITY, AND DISTRIBUTION

"The probable future growth of our population is of interest from many different angles. Obviously, any long-time plans for national development must rest on estimates of our future population. When we talk of a system of inland waterways, of the extension of railways, or of the highway system 30 or 40 years hence, we must necessarily be assuming a population of a fairly definite size to need these means of transportation and to use them economically.

* * * * * * *

"In numerous other ways, also, it is not only of interest to have fairly reliable estimates of future population, but it is absolutely essential to intelligent planning to have them. One need only mention the provision of adequate educational facilities, the expansion of our public utilities, the extension of our communication service over a period of time, the policies of state welfare departments charged with the custodial care of the socially inadequate, and numerous other projects which would be vitally affected by the knowledge of what the population in a given area is to be 10, 20, or 50 years hence."

WARREN S. THOMPSON

Future Growth

From the known quantity and quality of past and present population, we now turn to predictions of future growth. Numerous articles dealing with this phase of population which have appeared, especially during the last decade, reflect keen and widespread interest in this question. Despite the complex economic and social forces that determine the increase and movements of population, many writers on the subject believe that there are fixed laws governing its growth.

The first attempt to discover a law of population growth was made by Malthus (1798), whose famous theory holds that population tends to outrun the means of subsistence which in turn place limits beyond which surplus population will not survive.

From the time of Malthus down to the present numerous other theories have been advanced, notably those of Marx, George, Dumont, Carl-Saunders, Pearl and Reed, Whelpton, and Dublin. Each is based on slightly different premises and each merits consideration.

For the predictions used in this bulletin only the figures of the last three will be used. Of these three, probably the curve of Pearl and Reed is the most generally accepted. This curve is based on a mathematical formula, assuming a population limited by economic forces such as food supply. The formula holds that, when population begins to decline it will show a smooth curve similar to, but opposite from, the curve of observed years. This curve has been successfully applied to older nations that are now approaching stabilization, like France and Sweden.

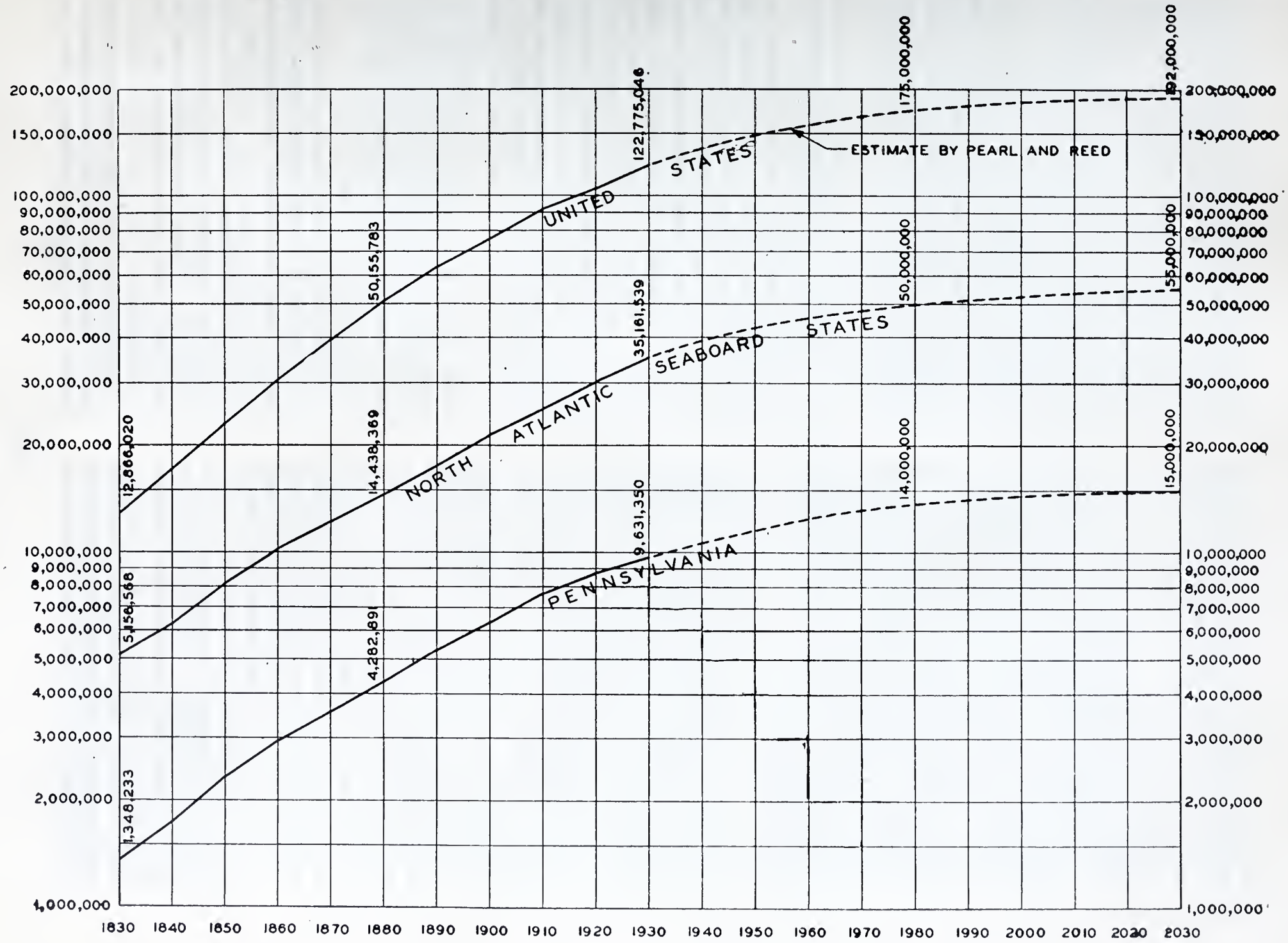
In chart 38 the growth of population in the United States, the North Atlantic seaboard states, and Pennsylvania from 1830 to 1930 is shown and these trends are projected 100 years into the future. The projections for the North Atlantic seaboard states and Pennsylvania are based on the supposition that for the next century each will continue to constitute about the same percentage of the total population of the United States that it does at the present time.

It may be argued that these groups will decline faster than the United States as a whole, if present trends continue. There is also the possibility that favorable economic changes may cause them to increase more rapidly. However, we must keep in mind the fact that it is difficult to predict so far in the future with any degree of certainty. Migrations, changing birth and death rates, immigration policies, and perhaps undreamed of changes in economic and social conditions may radically upset predictions. We have seen the same industrial activity that once promoted growth now retarding it. Shifts or decentralization of industry will cause some regions to grow and others to languish. While forecasts are useful and as reliable as may be, they can not be taken as guarantees.

The predictions of P. K. Whelpton, although arrived at by an entirely different method than those of Pearl and Reed, nevertheless agree with

CHART 58

ESTIMATES OF FUTURE POPULATION



theirs quite closely at certain points. For example, Pearl and Reed predict a total population of 175 million for 1980 and 185 million for 2000, while Whelpton predicts 175 million for 1975 and 186 million for 2000.

It is of interest to quote from Whelpton at this point regarding future growth.

"The years of mushroom growth which have been characteristic of the United States in the last century seem to be definitely numbered. Industrial programs which are based on a doubling of population in 30 or 40 years will need to be carefully scrutinized. In the past, much reckless expansion in manufacturing plants, real estate additions, and the like, has later been credited to the foresight of a business genius because the rapid growth of population soon caught up with his work. In the future, there will not be so great an increase in population to rush to the rescue. Irresponsible planning will likely show up as such, with hardships to those involved.

"In the field of social and civic activities the slowing up of population growth may have a different effect. Here it has been a difficult struggle in the past to keep up with the increase in numbers and provide the schools, hospitals, and other facilities needed. In fact, many localities have considered themselves fortunate if they did not fall too far behind in these respects to say nothing of keeping abreast with the rapidly growing population. From now on there should be a better chance to anticipate needs and to plan for them wisely."

In contrast to the predictions of Whelpton, and Pearl and Reed, we have those of Louis I. Dublin, forecasting a much slower rate of growth and earlier stabilization, as set forth in the following quotation:

"One thing can be stated definitely regarding the birth rate: if it is just to balance the death rate, it will have to assume a level of 14 per thousand by the time the mean length of life is 70 years.

"Using this as a clue, an estimate has been made of the future trend of the United States population on the supposition that mean length of life will reach the figure of 70 years by the year 1950 and that the birth rate will slowly adjust itself from the present level of about 18 until it drops to the equilibrium value of 14. On this assumption, we have computed that the population of the United States will reach a maximum of about 154,000,000 about the year 1990 and that it will thereafter decline slowly. On a more radical assumption, that the birth rate will ultimately decline to 10 per thousand, the population will reach its maximum somewhat earlier, namely, at about 1975. It will then be something short of 140,000,000, and the population will go into a rapid decline thereafter. I believe that the latter of these prognostications is more likely to be realized if present tendencies toward small families continue to prevail."

On the first of these two assumptions made by Dublin, the population of Pennsylvania would reach a maximum of 12 million about 1990, provided it continues to constitute about the same percentage of the United States population that it does at the present time. Likewise the North Atlantic seaboard states would reach a maximum of about 44 million by 1990.

On the second assumption, Pennsylvania would have a maximum of 11 million and the North Atlantic seaboard states 40 million by 1975.

The three predictions, excepting Dublin's second assumption, have at least one point in common: all agree that the United States will continue to grow at a decelerating rate for at least the next 70 years. Rural population for some time to come will continue to move toward the urban centers. According to Whelpton's estimates, by 1975 only slightly over 30 per cent of the American people will be rural in character. Meanwhile, within the centers of population and more especially in the large cities, the spreading out or city-to-suburb movement will continue. The city of the future will not be as densely populated as the city proper of today. The greatest population increase will be in the region adjacent to the city limits. There is a possibility that these suburban areas may be absorbed by the city and that metropolitan districts may achieve political integration.

Changing Status of Business

Industry as well as population will move in the same direction if present trends continue. High taxes in many cases prohibit the continuance of industry within the city; easy transportation enhances outside locations. Further evidence of decentralization becomes apparent in the depression of 1930-1932. It is entirely possible that some new and untried type of business organization may arise in the future.

The past hundred and fifty years have seen an era in which population has been constantly increasing, thus expanding purchasing power and

stimulating industry. The slowing up of population growth will, of necessity, affect industry. The results of this slowing up and the subsequent need of readjustment are well summed up by Warren S. Thompson in his "Population Problems."

"An organization which may work well as long as population is growing rapidly may prove quite inefficient and cumbersome when population growth becomes slower and practically ceases. We may, therefore, expect a great deal more experimentation in business organization within the next few decades than we have been accustomed to in the past. Particularly is this likely to be the case in business concerned primarily with the distribution of goods, for it is in this field that there appears to be the greatest waste at the present time. Seemingly far less attention has been given to merchandizing than production."

Pennsylvania has most of the prerequisites that promote growth of population and industry: natural opportunities, rich resources, and proximity to centers of population, offering all the advantages that centralization can give. Its transportation facilities are unexcelled, touching the Atlantic on the east and the Great Lakes on the west. Its educational and cultural advantages are surpassed by none.

The varied activities of Pennsylvania guard well against factors that retard growth such as high cost of land and congested areas; where housing accommodations are unsuitable, every available resource is being brought to bear to remedy the condition.

Stabilization

It is a matter of conjecture whether the population of Pennsylvania will reach stabilization before that of the United States as a whole. In the light of present trends it seems extremely likely that this will be the case. In reviewing her percentage increase we find that she has dropped below the average for the United States during the last two decades. This decline may or may not continue. The discussion of age distribution indicates that the higher average age of our population inevitably presages a higher death rate as well as a lower birth rate. Then too, the daughters of the foreign-born have become Americanized to the extent that they do not, in general, have larger families than native-born women. The fact that many outlying or rural counties in Pennsylvania, where according to statistics birth rates are much higher than in cities, show a stationary or declining population, indicates stabilization for the state before the year 2000.

Pennsylvania's Future

In Pennsylvania the three centers of population, namely, the Philadelphia, Pittsburgh, and Scranton areas, as well as the smaller metropolitan districts should, barring unforeseen developments such as extension of transportation by air, continue to be the most densely populated and the fastest growing regions of the state. Growth will not be confined to the narrow city or district areas, but will also be suburban in character. Cheap and rapid transportation has done much to expand these semi-urban developments. Further improvements in transportation and the development of television at reasonable cost, would still further enhance the attractiveness of this type of living, in which the advantages of the country are combined with the attractions that cities offer in business, education, and culture.

As we vision the future, under the present strict immigration laws, we cannot fail to foresee a gradual change from a heterogeneous to a homogeneous population, with the possible exception of that percentage which is colored. In 1930, 12 per cent of the population of the United States and 13 per cent of Pennsylvania's population was foreign-born. Barring any relaxation of our present immigration laws, this percentage will show a marked decrease as time goes on. Since races now freely intermarry, tending thereby to absorb the foreign settlements existing in our large cities, a gradual trend toward homogeneity is inevitable.

Many of the difficulties that Pennsylvania has experienced in common with other industrial states, due to a hitherto unrestricted immigration, should be mitigated by the growing homogeneity of the population. This gain will be achieved, to be sure, at the price of whatever benefits flow from an infusion of foreign racial and cultural factors into our economic and social life.

Moreover, it is claimed that the drift to the cities from the farms tends to upset the balance of our economic scheme, making it predominantly urban and industrial. The movement for the decentralization of industry and for part-time farming may, however, arrest this process.

The gradual change toward a population composed in larger part of older people will have to

be taken into consideration not only as regards working conditions in industry, but also in the manufacture of consumers' goods, in so far as this change results in a modification of buying habits and market demand.

Forces that attract and repel will continue to operate. At the present time it is alleged that industry, as well as population is migrating, from the state in search of more favorable conditions.

Stabilization of industry and employment, therefore, is one essential prerequisite to check these shifts of population and capital that are proving prejudical to Pennsylvania's progress. Planning for entire industries looms as the proper step for long-time industrial stabilization.

To strengthen the forces that attract, to counteract those that repel, and in short to make Pennsylvania a better state in which to live and work and play is a task that challenges the cooperation of all forward-looking citizens and organizations. What these forces are and how they may be controlled or directed are questions that the Greater Pennsylvania Council will endeavor to answer, although they fall outside the scope of this study.